PB-240 719

OIL SPILL AND OIL POLLUTION REPORTS
JULY 1974 - OCTOBER 1974

CALIFORNIA UNIVERSITY

PREPARED FOR
NATIONAL ENVIRONMENTAL RESEARCH CENTER

MARCH 1975

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The July 1974 - October 1974 Oil Spill and Oil Pollution Reports is the first quarterly compilation of oil spill events and oil pollution report summaries. Presented in the report are: (a) summaries of oil spill events; (b) summaries and bibliographic literature citations; (c) summaries of current research projects; and (d) patent summaries. This report is submitted in partial fulfillment of EPA Grant No. R-803063 by the Marine Science Institute, University of California, Santa Barbara, under the sponsorship of the Environmental Protection Agency.

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OIL SPILL AND OIL POLLUTION REPORTS

July 1974 - October 1974

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The National Environmental Research Center--Cincinnati has reviewed this report and approved its publication. Approval does not signify that the contents necessarily reflect the views and policies of the U.S. Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

FOREWORD

Man and his environment must be protected from the adverse effects of pesticides, radiation, noise and other forms of pollution, and the unwise management of solid waste. Efforts to protect the environment require a focus that recognizes the interplay between the components of our physical environment -- air, water, and land. The National Environmental Research Centers provide this multidisciplinary focus through programs engaged in

- studies on the effects of environmental contaminants on man and the biosphere, and
- a search for ways to prevent contamination and to recycle valuable resources.

The compilation and dissemination of pertinent information is essential to understanding and management of the environment.

This report is the first in a series of quarterly reports highlighting significant and recent events, research, and literature dealing with the prevention, control and cleanup of oil spills.

A. W. Breidenbach, Ph.D.
Director
National Environmental Research
Center, Cincinnati

ABSTRACT

The July 1974 - October 1974 Oil Spill and Oil Pollution Reports is the first quarterly compilation of oil spill events and oil pollution report summaries.

Presented in the report are:

a) Summaries of oil spill events;
b) Summaries and bibliographic literature citations;
c) Summaries of current research projects; and,
d) Patent summaries.

This report is submitted in partial fulfillment of EPA Grant No. R803063 by the Marine Science Institute, University of California, Santa Barbara California under the sponsorship of the Environmental Protection Agency.

CONTENTS

Page

Abstract iv

Acknowledgments viii

Introduction ix

Sections

I Oil Spill Events 1

II Publications and Reports

A. Oil Pollution Detection and Evaluation

1. Monitoring 79

2. Remote Sensing 80

3. Sampling 84

4. Analysis 85

B. Oil Pollution Control

1. Containment 90

2. Cleanup 93

C. Effects of Oil Pollution

1. Biological 97

2. Physical 103

D. Oil Pollution Prevention

1. Design and Engineering 110

2. Oil Recovery and Handling Techniques 112

3. Research 117

(cont'd)

Page

E. Effects of Oil Prospecting and Production 118

F. Oil Pollution Legislation

1. State 119

2. National 120

3. International 123

4. Foreign 124

III Current Research Projects

A. Oil Pollution Detection and Evaluation

1. Monitoring , , ... 125

2. Remote Sensing 129

3. Sampling 132

4. Analysis 133

B. Oil Pollution Control

1. Containment 140

2. Cleanup 145

C. Effects of Oil Pollution

1. Biological 148

2. Physical 174

3. Chemical 176

4. Economic 177

5. General 178

D. Oil Pollution Prevention

1. Design and Engineering 179

(cont'd)

Page

2. Oil Recovery and Handling Techniques 180

3. Research 188

E. Legal Aspects of Oil Pollution 191

IV Patents

A. United States 192

B. Foreign 200

Topic Cross Reference 205

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INTRODUCTION

This is the first edition of Oil Spill and Oil Pollution Reports. It consists of four major sections: oil spill events, summaries of articles from the scientific and technical literature, summaries of current research projects, and summaries of oil pollution related patents.

Oil spill events are arranged alphabetically by state and chronologically for each state. Following the state is listed the county and city nearest to where the spill occurred. The Oil Spill Event dates range beyond the stated dates of this report and the report does not include all oil spills between July and October, 1974. The amount of detailed information for each oil spill entry varies with the oil spill information source.

Summaries and bibliographic citations of articles from the scientific and technical literature are arranged by topic and alphabetically by senior author within each topic. Sources for the summarized material are scientific and technical journals and abstracting journals.

Current research project summaries are arranged by topic and alphabetically by senior principal investigator within each topic. The topics used in this section are generally the same as used in the proceeding section but to avoid confusion the two sections are separate. All the research project information was obtained from the Smithsonian Science Information Exchange (SSIE).

Patent summaries are divided into United States and foreign and arranged alphabetically by inventor in each section. All patent information was obtained from abstracting journals. Illustrations of the patented devices, if available, were taken from the U. S. Patent Office Official Gazette for United States patents.

All report entries are serialized. Each section has its own number series starting with entry number one and each section entry serial number is preceeded by a letter which designates the section: S, oil spill events; C, citation from the literature; R, research project; P, patent. In subsequent reports the number series will continue. Many of the included entries will fit under more than one topic. Therefore, a topic cross index list is provided at the end of the report. Following the summary are listed any other topics which apply to the entry.

SECTION I.

OIL SPILL EVENTS

ALABAMA

S-0001-74

Alabama//
Freshwater
January 1, 1974
Source: Industrial operation
Total Volume: 5 Barrels Volume in Water: 5 Barrels
Type: Number 6 fuel oil
Cause: Transfer hose rupture
Comments: Cleanup conducted
Spill Information Source: State of Alabama Water Improvement Commission

S-0002-74

Alabama//
Freshwater and Terrestrial
January 14, 1974
Source: Truck
Total Volume: 6,000 Gallons Volume in Water: Unknown
Type: Number 6 fuel oil
Cause: Truck overturn
Containment: 2 x 4's, wire and hay
Comments: Cleanup - hay and straw, Dien-sorb
Spill Information Source: State of Alabama Water Improvement Commission

S-0003-74

Alabama//
Freshwater
January 29, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Unknown type oil
Cause: Unknown
Comments: Small patch reported
Spill Information Source: State of Alabama Water Improvement Commission

S-0004-74

Alabama//
Marine
January 31, 1974
Source: Ship, barge
Total Volume: 200-300 Gallons Volume in Water: 200-300 Gallons
Type: Number 6 fuel oil
Cause: Barge struck beacon marker
Comments: Cleanup - shovels, rakes, and mops to clean beaches
Spill Information Source: State of Alabama Water Improvement Commission

S-0005-74

Alabama//
Freshwater
January 31, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Fuel oil
Cause: Unknown
Comments: Light sheen reported
Spill Information Source: State of Alabama Water Improvement Commission

S-0006-74

Alabama//
Terrestrial
February 22, 1974
Source: Industrial operation
Total Volume: 500 Gallons Volume in Water: 0
Type: Gasoline
Cause: Broken line
Containment: Sand
Spill Information Source: State of Alabama Water Improvement Commission

S-0007-74

Alabama//
Terrestrial
February 28, 1974
Source: Pipeline
Total Volume: Unknown Volume in Water: 0
Type: Unknown type oil
Cause: Leak in 8-inch pipe
Comments: Cleanup - back hoe
Spill Information Source: State of Alabama Water Improvement Commission

S-0008-74

Alabama//
Terrestrial
March 12, 1974
Source: Industrial operation
Total Volume: 20 Barrels Volume in Water: 0
Type: Unknown type oil
Cause: Fitting on well ruptured
Comments: Cleanup - sweeper
Spill Information Source: State of Alabama Water Improvement Commission

S-0009-74

Alabama//
Freshwater
March 25, 1974
Source: Industrial operation
Total Volume: 5 Gallons Volume in Water: Unknown
Type: Unknown type oil
Cause: Unknown
Comments: Cleanup conducted
Spill Information Source: State of Alabama Water Improvement Commission

S-0010-74

Alabama//
Freshwater
March 1974
Source: Industrial operation
Total Volume: 5 Gallons Volume in Water: Unknown
Type: Unknown type oil
Cause: Unknown
Comments: Cleanup conducted
Spill Information Source: State of Alabama Water Improvement Commission

S-0011-74

Alabama//
Freshwater
April 4, 1974
Source: Industrial operation
Total Volume: 25 Barrels Volume in Water: Unknown
Type: Number 6 fuel oil
Cause: Nipple sheered off fuel line relief
Containment: Booms
Comments: Cleanup conducted
Spill Information Source: State of Alabama Water Improvement Commission

S-0012-74

Alabama//
Freshwater
April 30, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Unknown type oil
Cause: Unknown
Comments: Cleanup - hay booms
Spill Information Source: State of Alabama Water Improvement Commission

S-0013-74

Alabama//
Freshwater
May 23, 1974
Source: Industrial operation
Total Volume: Unknown Volume in Water: Unknown
Type: Unknown type oil
Cause: Leak in hose
Containment: Hay-wire booms
Comments: Cleanup conducted
Spill Information Source: State of Alabama Water Improvement Commission

S-0014-74

Alabama/Antauga/Prattville
Inland stream - Antauga
June 10, 1974
Source: Onshore nontransportation - boiler feed line
Total Volume: Unknown Volume in Water: Unknown
Type: Number 5 oil
Cause: Equipment failure - feed line leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030205

S-0015-74

Alabama/Tuscaloosa/Tuscaloosa
Inland river - Back Warrior
June 12, 1974
Source: Onshore transportation - transfer hose
Total Volume: 5 Gallons Volume in Water: 5 Gallons
Type: Number 5 oil
Cause: Personnel error - hose testing
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030197

S-0016-74

Alabama/Morgan/Decatur
Inland river - Tennessee,mile 299
June 12, 1974
Source: Offshore transportation - tank barge
Total Volume: 80 Gallons Volume in Water: 80 Gallons
Type: Number 6 oil
Cause: Personnel error - cargo tank overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030190

S-0017-74

Alabama//
Freshwater
July 17, 1974
Source: Industrial operation
Total Volume: Unknown Volume in Water: Unknown
Type: Unknown type oil
Cause: Oil sump overflow
Spill Information Source: State of Alabama Water Improvement Commission

S-0018-74

Alabama//
Freshwater
August 7, 1974
Source: Industrial operation
Total Volume: 50 Gallons Volume in Water: Unknown
Type: Crankcase oil
Cause: Unknown
Comments: Cleanup conducted
Spill Information Source: State of Alabama Water Improvement Commission

S-0019-74

Alabama//
August 9, 1974
Source: Tank farm
Total Volume: 160 Barrels Volume in Water: Unknown
Type: Crude
Cause: Malfunction in flow stabilizer
Containment: Boom
Restoration: Gradual
Comments: Cleanup - hay and fiberperl sorbent
Spill Information Source: State of Alabama Water Imrpovement Commission

S-0020-74

Alabama//
Terrestrial
August 13, 1974
Source: Truck
Total Volume: 5,000-6,000 Gallons Volume in Water: 0
Type: Number 6 fuel oil
Cause: Truck accident
Containment: Ditch
Restoration: Resod area
Comments: Cleanup - sand pickup
Spill Information Source: State of Alabama Water Improvement Commission

S-0021-74

Alabama//
Freshwater
September 5, 1974
Source: Pipeline
Total Volume: 25-50 Barrels Volume in Water: Unknown
Type: Unknown type oil
Cause: Pinhole leak in 8-inch pipe
Comments: Cleanup conducted
Spill Information Source: State of Alabama Water Improvement Commission

S-0022-74

Alabama//
Freshwater
September 9, 1974
Source: Tank farm
Total Volume: 15 Barrels Volume in Water: Unknown
Type: Unknown type oil
Cause: Unknown
Comments: Cleanup - hayed areas; burned off some
Spill Information Source: State of Alabama Water Improvement Commission

S-0023-74

Alabama//
Freshwater
September 10, 1974
Source: Tank farm
Total Volume: 1,000 Gallons Volume in Water: Unknown
Type: No-lead gasoline
Cause: Failed to close drain valve
Comments: Dissipating
Spill Information Source: State of Alabama Water Improvement Commission

S-0024-74

Alabama//
Freshwater
September 16, 1974
Source: Unknown
Total Volume: 5-6 Gallons Volume in Water: Unknown
Type: Unknown type oil
Cause: Unknown
Spill Information Source: State of Alabama Water Improvement Commission

S-0025-74

Alabama//
Freshwater
September 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Unknown type oil
Cause: Unknown
Comments: EPA Notified, assumed cleanup
Spill Information Source: State of Alabama Water Improvement Commission

S-0026-74

Alabama//
Freshwater
September 1974
Source: Ship, barge
Total Volume: 5-10 Gallons Volume in Water: Unknown
Type: Thermal fluid heating oil
Cause: Unknown
Comments: Pollutant dispersed by wheel wash; no cleanup possible
Spill Information Source: State of Alabama Water Improvement Commission

ALASKA

S-0027-74

Alaska//Dutch Harbor
Coastal - Dutch Harbor
June 28, 1974
Source: Offshore transportation - BIA vessel
Total Volume: 5,324 Gallons Volume in Water: 5,324 Gallons
Type: Combination diesel, aviation, gas and slop oil
Cause: Casualty - collision between vessel and dock resulting in severing of fuel lines
Comments: Recovered 800 gallons of oil
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030108

ARKANSAS

S-0028-74

Arkansas/Union/El Dorado
Inland - Bayou D'Loutre
June 8, 1974
Source: Onshore transportation - pipeline
Total Volume: 8,400 Gallons Volume in Water: 8,400 Gallons
Type: Crude oil
Cause: Natural phenomenon - flooding

Comments: Undetermined amount of oil also lost from an oil separation in the flood
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029942

S-0029-74

Arkansas/Union/El Dorado
Inland stream
June 11, 1974
Source: Onshore transportation - transportation pipeline, 4 inch
Total Volume: 2,100 Gallons Volume in Water: 2,100 Gallons
Type: Crude oil
Cause: Natural phenomenon - flooding washed out 600 ft. of pipeline
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030004

S-0030-74

Arkansas/Cleburne/Heber
Inland - Lake Greers Ferry
June 11, 1974
Source: Onshore nontransportation - other (boat dock service)
Total Volume: 30 Gallons Volume in Water: 30 Gallons
Type: Gasoline
Cause: Natural phenomenon - tornado
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030021

S-0031-74

Arkansas/Union/El Dorado
Inland stream
June 11, 1974
Source: Onshore nontransportation - pipeline, 4 inch
Total Volume: 15,120 Gallons Volume in Water: 14,910 Gallons
Type: Crude oil
Cause: Casualty
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030369

S-0032-74

Arkansas/Union/Smackover
Inland stream
June 22, 1974
Source: Onshore nontransportation - oil production
Total Volume: 12,600 Gallons Volume in Water: 12,600 Gallons
Type: Crude oil
Cause: Equipment failure - gun barrel sanded-up causing storage tank overflow
Comments: Cleanup completed
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030396

S-0033-74

Arkansas/Columbia/Stephens
Inland
June 25, 1974
Source: Onshore transportation - 2 inch gathering line
Total Volume: 4,200 Gallons Volume in Water: 0
Type: Crude oil
Cause: Casualty - struck by road grader
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030095

S-0034-74

Arkansas/Union/Smackover
Inland stream - Smackover and Mills Creek
June 26, 1974
Source: Undetermined
Total Volume: 13,000 Gallons Volume in Water: 13,000 Gallons
Type: Oil
Cause: Natural phenomenon, due to recent heavy rains
Containment: Vacuum truck; hay barrier built when creek flows enough to move remaining oil downstream
Comments: Source undetermined due to high waters on Quachita River which hindered cleanup
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030397

S-0035-74

Arkansas/Sebastian/Ft. Smith
Inland
June 29, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 400 Gallons Volume in Water: 0
Type: Gasoline
Cause: Personnel error - tank overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030361

CALIFORNIA

S-0036-74

California//Stockton
Coastal harbor - Uptown Yacht Harbor
June 3, 1974
Source: Onshore nontransportation - storage
Total Volume: Unknown Volume in Water: 3,400 Gallons
Type: Diesel oil
Cause: Personnel error - poor housekeeping practices and recent large spills on grounds
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030127

S-0037-74

California/Santa Barbara/Santa Barbara
Coastal - Pacific Ocean
June 11, 1974
Source: Onshore nontransportation - storage
Total Volume: 2,500 Gallons Volume in Water: 2,500 Gallons
Type: Waste
Cause: Deliberate discharge - vandalism
Comments: Media coverage - great public concern
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030134

CONNECTICUT

S-0038-74

Connecticut/New Haven/New Haven
Coastal port - New Haven Harbor
June 1, 1974
Source: Offshore transportation - tanker
Total Volume: 50-75 Gallons Volume in Water: 50-75 Gallons
Type: Number 2 oil
Cause: Structural failure - tank leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030408

S-0039-74

Connecticut/New London/Groton
Coastal port - Thames River
June 2, 1974
Source: Onshore nontransportation - industrial plant
Total Volume: Unknown Volume in Water: 20 Gallons
Type: Number 2 oil
Cause: Natural phenomenon, natural seepage
Comments: Seepage due to spill of 2 May 1973. Warm weather and rain brought out additional oil
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030465

S-0040-74

Connecticut/Fairfield/Stamford
Coastal port - Stamford Harbor
June 3, 1974
Source: Onshore nontransportation - tanker
Total Volume: Unknown Volume in Water: 20 Gallons
Type: Number 2 oil
Cause: Equipment failure - hose rupture
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030445

S-0041-74

Connecticut/Fairfield/Greenwich
Inland stream - Brothers Brook
June 4, 1974
Source: Onshore nontransportation - highway passenger
Total Volume: 2 Quarts Volume in Water: 2 Quarts
Type: Waste and engine oil
Cause: Deliberate discharge - disposal of waste oil
Comments: Resident poured 1/2 gallon of waste oil into a storm drain east of his property
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030471

S-0042-74

Connecticut/New Haven/New Haven
Coastal port - New Haven
June 6, 1974
Source: Offshore transportation - tanker
Total Volume: 10 Gallons Volume in Water: 1 Gallon
Type: Number 2 oil
Cause: Personnel error - improper hose connection
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030442

S-0043-74

Connecticut/New London/Norwich
Coastal port - Thames River
June 13, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: Unknown Volume in Water: Unknown
Type: Number 2, Number 4 oil
Cause: Structural failure - storage tank leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030433

S-0044-74

Connecticut/Fairfield/Bridgeport
Coastal port - Bridgeport
June 14, 1974
Source: Offshore transportation - tanker
Total Volume: Unknown Volume in Water: 100-200 Gallons
Type: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030447

S-0045-74

Connecticut/Fairfield/Norwalk
Coastal port - Norwalk
June 17, 1974
Source: Onshore nontransportation - marina
Total Volume: 50 Gallons Volume in Water: 50 Gallons
Type: Gasoline
Cause: Deliberate discharge - vandalism
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030472

S-0046-74

Connecticut/New London/New London
Coastal port - Thames River
June 19, 1974
Source: Offshore transportation - naval vessel
Total Volume: 7 Gallons Volume in Water: 5-7 Gallons
Type: Waste and bilge
Cause: Deliberate discharge - pumping bilges
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030429

S-0047-74

Connecticut/Fairfield/Bridgeport
Coastal port - Cedar Creek
June 24, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: Unknown Volume in Water: 25 Gallons
Type: Waste oil
Cause: Equipment failure - hose rupture
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030444

S-0048-74

Connecticut/New London/New London
Coastal port - Thames River
June 24, 1974
Source: Offshore transportation - naval vessel
Total Volume: Unknown Volume in Water: 1-3 Gallons
Type: Number 2 oil
Cause: Personnel error - tank overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030474

S-0049-74

Connecticut/Hartford/Windsor Locks
Inland river - Connecticut
August 14, 1974
Source: Onshore nontransportation - industrial plant
Total Volume: 5 Gallons Volume in Water: 1 Gallon
Type: Number 6 oil
Cause: Equipment failure - line leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030486

DISTRICT OF COLUMBIA

S-0050-74

District of Columbia/Washington
Coastal - Little River, channel to Potomac
June 1, 1974
Source: Onshore nontransportation - other: apartment house
Total Volume: 2,000 Gallons Volume in Water: 2,000 Gallons
Type: Number 2 oil
Cause: Deliberate discharge - sump pump
Containment: Contained by beams or walls - removal/physical pickup
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030018

S-0051-74

District of Columbia//Roosevelt Island
Potomac River
June 1, 1974
Source: Onshore nontransportation - storage
Total Volume: 4,000 Gallons Volume in Water: 4,000 Gallons
Type: Number 6 oil
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030115

FLORIDA

S-0052-74

Florida/Hillsborough/Tampa
Coastal bay - East Tampa
June 13, 1974
Source: Onshore transportation - highway operation - tank truck
Total Volume: 5,300 Gallons Volume in Water: 5,300 Gallons
Type: Number 2 diesel oil
Cause: Casualty - tanker overturned
Comments: Cleanup contractor was hired by company
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030188

S-0053-74

Florida/Lee/Fort Myers
Inland canal drainage
June 19, 1974
Source: Onshore n[illegible]ortation - underground storage tank
Total Volume: 3[illegible]s Volume in Water: 200 Gallons
Type: Gasoline
Cause: Personnel error - tank overfill
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030170

GEORGIA

S-0054-74

Georgia//Atlanta
January 2, 1974
Source: Unknown
Total Volume: 500-2,000 Gallons Volume in Water: Unknown
Type: Number 4 heating oil
Cause: Unknown
Comments: All cleaned
Spill Information Source: Georgia Department of Natural Resources

S-0055-74

Georgia//Flowery Branch
January 2, 1974
Source: Unknown
Total Volume: 8,000 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Comments: All burned
Spill Information Source: Georgia Department of Natural Resources

S-0056-74

Georgia/Cherokee/
January 16, 1974
Source: Unknown
Total Volume: 5 Gallons Volume in Water: Unknown
Type: Truck drainings
Cause: Unknown
Comments: No cleanup conducted
Spill Information Source: Georgia Department of Natural Resources

S-0057-74

Georgia//
Freshwater - Lake Seminok
January 17, 1974
Source: Unknown
Total Volume: >100 Gallons Volume in Water: Unknown
Type: Oil
Cause: Unknown
Comments: No cleanup conducted
Spill Information Source: Georgia Department of Natural Resources

S-0058-74

Georgia//Dallas
January 18, 1974
Source: Unknown
Total Volume: 200 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Unknown
Comments: Cleanup by company responsible for spill
Spill Information Source: Georgia Department of Natural Resources

S-0059-74

Georgia/Fulton/
January 21, 1974
Source: Unknown
Total Volume: 25-50 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Fuel tank ruptured on truck
Spill Information Source: Georgia Department of Natural Resources

S-0060-74

Georgia//Decatur
January 24, 1974
Source: Unknown
Total Volume: 15 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Comments: Flushed away
Spill Information Source: Georgia Department of Natural Resources

S-0061-74

Georgia//Trenton
January 25, 1974
Source: Unknown
Total Volume: 1,200-1,500 Gallons Volume in Water: Unknown
Type: Number 2 heating fuel
Cause: Unknown
Comments: Cleaned up by company responsible for spill
Spill Information Source: Georgia Department of Natural Resources

S-0062-74

Georgia//Hapeville
February 6, 1974
Source: Unknown
Total Volume: 500 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Comments: Flushed by Fire Department
Spill Information Source: Georgia Department of Natural Resources

S-0063-74

Georgia//
February 7, 1974
Source: Unknown
Total Volume: 500 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Unknown
Containment: Contained and cleaned up by company responsible for spill
Spill Information Source: Georgia Department of Natural Resources

S-0064-74

Georgia//McCray
February 13, 1974
Source: Unknown
Total Volume: 10-25 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Unknown
Comments: Soaked up with sand
Spill Information Source: Georgia Department of Natural Resources

S-0065-74

Georgia/Rockdale/
February 28, 1974
Source: Unknown
Total Volume: 50-100 Gallons Volume in Water: Unknown
Type: Waste oil
Cause: Unknown
Comments: Constant dump, company removing
Spill Information Source: Georgia Department of Natural Resources

S-0066-74

Georgia//Thompson
March 1, 1974
Source: Unknown
Total Volume: 300-400 Gallons Volume in Water: Unknown
Type: Process oil
Cause: Unknown
Comments: Not reported, cleaned up by company
Spill Information Source: Georgia Department of Natural Resources

S-0067-74

Georgia/Gwinnett/
March 11, 1974
Source: Unknown
Total Volume: >10 Gallons Volume in Water: Unknown
Type: Diesel lube
Cause: Engine turned over
Spill Information Source: Georgia Department of Natural Resources

S-0068-74

Georgia//Blue Ridge
March 13, 1974
Source: Unknown
Total Volume: 1,000 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Underground tank leak
Spill Information Source: Georgia Department of Natural Resources

S-0069-74

Georgia/Floyd/
March 14, 1974
Source: Unknown
Total Volume: 8,000-9,000 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil storage tank cleanings
Comments: Cleaned up by County
Spill Information Source: Georgia Department of Natural Resources

S-0070-74

Georgia//Atlanta
March 14, 1974
Source: Unknown
Total Volume: 800 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Unknown
Comments: Flushed by Fire Department
Spill Information Source: Georgia Department of Natural Resources

S-0071-74

Georgia//
Freshwater - Chatahoochee River, mile 41
March 15, 1974
Source: Unknown
Total Volume: 10-20 Gallons Volume in Water: Unknown
Type: Light aromatic
Cause: Barge leak
Spill Information Source: Georgia Department of Natural Resources

S-0072-74

Georgia//Metter
March 17, 1974
Source: Unknown
Total Volume: 60 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Tank overflow
Spill Information Source: Georgia Department of Natural Resources

S-0073-74

Georgia/DeKalb/Tucker
March 20, 1974
Source: Unknown
Total Volume: 250 Gallons Volume in Water: Unknown
Type: Gasoline
Comments: Flushed by Fire Department
Spill Information Source: Georgia Department of Natural Resources

S-0074-74

Georgia//Covington
March 27, 1974
Source: Unknown
Total Volume: 84 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Comments: Cleaned up by company responsible for spill
Spill Information Source: Georgia Department of Natural Resources

S-0075-74

Georgia//Savannah
March 27, 1974
Source: Unknown
Total Volume: 2,500 Gallons Volume in Water: Unknown
Type: Number 6 fuel oil
Cause: Unknown
Comments: Cleaned up by company responsible for spill
Spill Information Source: Georgia Department of Natural Resources

S-0076-74

Georgia//Savannah
April 12, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Underground tank leak
Spill Information Source: Georgia Department of Natural Resources

S-0077-74

Georgia//Skatesboro
April 22, 1974
Source: Unknown
Total Volume: 3,000 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Line rupture
Spill Information Source: Georgia Department of Natural Resources

S-0078-74

Georgia//Chamblee
May 3, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Light aromatic
Cause: Unknown
Comments: Fish kill
Spill Information Source: Georgia Department of Natural Resources

S-0079-74

Georgia//Rome
May 6, 1974
Source: Unknown
Total Volume: 1,800 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Spill Information Source: Georgia Department of Natural Resources

S-0080-74

Georgia//Cartersville
May 10, 1974
Source: Unknown
Total Volume: 100 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Unknown
Comments: Soaked into ground
Spill Information Source: Georgia Department of Natural Resources

S-0081-74

Georgia//Baxley
May 15, 1974
Source: Unknown
Total Volume: 1,500 Gallons Volume in Water: Unknown
Type: Asphalt
Cause: Unknown
Containment: Contained in ditch
Spill Information Source: Georgia Department of Natural Resources

S-0082-74

Georgia/Bartow/White
Freshwater
May 16, 1974
Source: Unknown
Total Volume: 10-15 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Unknown
Comments: Got into Crow Springs Creek
Spill Information Source: Georgia Department of Natural Resources

S-0083-74

Georgia//
May 17, 1974
Source: Unknown
Total Volume: 3,000 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Comments: Soaked into ground
Spill Information Source: Georgia Department of Natural Resources

S-0084-74

Georgia//Athens
May 23, 1974
Source: Unknown
Total Volume: 3,000 Gallons Volume in Water: Unknown
Type: Asphalt
Cause: Unknown
Containment: Contained in ditch
Spill Information Source: Georgia Department of Natural Resources

S-0085-74

Georgia//Doraville
May 26, 1974
Source: Unknown
Total Volume: 3,000 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Unknown
Comments: Cleaned up by company
Spill Information Source: Georgia Department of Natural Resources

S-0086-74

Georgia//Cordele
May 28, 1974
Source: Unknown
Total Volume: 3,000 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Unknown
Comments: Soaked into ground
Spill Information Source: Georgia Department of Natural Resources

S-0087-74

Georgia/Fulton/
May 31, 1974
Source: Unknown
Total Volume: 200-300 Gallons Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Unknown
Comments: Cleaned up by company
Spill Information Source: Georgia Department of Natural Resources

S-0088-74

Georgia/Dekalb/Lithonia
Inland
June 11, 1974
Source: Onshore transportation - highway operation truck
Total Volume: 30 Gallons Volume in Water: 0
Type: Gasoline
Cause: Equipment failure - broken saddle tank straps
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030199

S-0089-74

Georgia/Dekalb
June 15, 1974
Source: Unknown
Total Volume: >50 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Full tank leak
Spill Information Source: Georgia Department of Natural Resources

S-0090-74

Georgia/Dekalb/Stone Mountain
Inland
June 15, 1974
Source: Onshore transportation - rental truck fill spout
Total Volume: Unknown Volume in Water: Unknown
Type: Gasoline
Cause: Natural phenomenon - gas expansion in fuel tank
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030180

S-0091-74

Georgia/Fulton/Buckhead
Inland - tributary to Nancy Creek
June 16, 1974
Source: Onshore nontransportation - shop
Type: Solvent and oil
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030179

S-0092-74

Georgia//Norcross
June 18, 1974
Source: Unknown
Total Volume: 50 Gallons Volume in Water: Unknown
Type: Used automotive oil
Cause: Unknown
Comments: Cleanup by company causing spill
Spill Information Source: Georgia Department of Natural Resources

S-0093-74

Georgia//Lawrenceville
June 18, 1974
Source: Unknown
Total Volume: <50 Gallons Volume in Water: Unknown
Type: Motor oil
Cause: Unknown
Comments: No cleanup, problem resolved
Spill Information Source: Georgia Department of Natural Resources

S-0094-74

Georgia/Atlanta/Buckhead
June 20, 1974
Source: Unknown
Total Volume: 50 Gallons Volume in Water: Unknown
Type: Solvent
Cause: Unknown
Comments: Cleanup by EPA
Spill Information Source: Georgia Department of Natural Resources

S-0095-74

Georgia/Dekalb/Atlanta
Inland
June 28, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Oil
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030147

S-0096-74

Georgia/Dekalb/
June 28, 1974
Source: Unknown
Total Volume: 100-200 Gallons Volume in Water: Unknown
Type: Transformer oil
Cause: Unknown
Comments: Cleanup by County
Spill Information Source: Georgia Department of Natural Resources

S-0097-74

Georgia//Cordele
June 28, 1974
Source: Unknown
Total Volume: 6,400 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Spill Information Source: Georgia Department of Natural Resources

S-0098-74

Georgia//Atlanta
July 3, 1974
Source: Unknown
Total Volume: 40 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Comments: Flushed by firm causing spill
Spill Information Source: Georgia Department of Natural Resources

S-0099-74

Georgia/Dekalb/
July 5, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Road sealer
Cause: Runoff from road paving
Spill Information Source: Georgia Department of Natural Resources

S-0100-74

Georgia/Clayton/Jonesboro
July 6, 1974
Source: Unknown
Total Volume: 320 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Comments: Flushed by Fire Department
Spill Information Source: Georgia Department of Natural Resources

S-0101-74

Georgia//Covington
Inland
July 11, 1974
Source: Unknown
Total Volume: 50-100 Gallons Volume in Water: 0
Type: Gasoline
Cause: Unknown
Comments: No waterway involved
Spill Information Source: Georgia Department of Natural Resources

S-0102-74

Georgia//Rome
July 11, 1974
Source: Unknown
Total Volume: 100 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Comments: Flushed by Fire Department
Spill Information Source: Georgia Department of Natural Resources

S-0103-74

Georgia//Tunnel Hill
July 13, 1974
Source: Unknown
Total Volume: 25-50 Gallons Volume in Water: Unknown
Type: Paving material
Cause: Unknown
Comments: Unresolved - no cleanup
Spill Information Source: Georgia Department of Natural Resources

S-0104-74

Georgia//Macon
Freshwater
July 17, 1974
Source: Unknown
Total Volume: 50 Gallons Volume in Water: Unknown
Type: Lubricating oil
Cause: Unknown
Comments: Reached Ocreulgee River, no cleanup
Spill Information Source: Georgia Department of Natural Resources

S-0105-74

Georgia/Dekalb/
Inland
August 12, 1974
Source: Unknown
Total Volume: 300 Gallons Volume in Water: 0
Type: Number 2 diesel fuel
Cause: Unknown
Comments: None reached waterway
Spill Information Source: Georgia Department of Natural Resources

S-0106-74

Georgia//Atlanta
Freshwater
August 20, 1974
Source: Unknown
Total Volume: 600-1,000 Gallons Volume in Water: Unknown
Type: Jet fuel
Cause: Unknown
Comments: Fish kill in Flint River
Spill Information Source: Georgia Department of Natural Resources

S-0107-74

Georgia//Atlanta
August 28, 1974
Source: Unknown
Total Volume: 10-100 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Comments: Flushed by Fire Department
Spill Information Source: Georgia Department of Natural Resources

S-0108-74

Georgia//Brunswick
Inland
August 28, 1974
Source: Unknown
Total Volume: 25 Gallons Volume in Water: 0
Type: Asphalt
Cause: Unknown
Comments: None reached waterway
Spill Information Source: Georgia Department of Natural Resources

S-0109-74

Georgia/Atlanta/Liberty
Inland
August 29, 1974
Source: Unknown
Total Volume: 2,000 Gallons Volume in Water: 0
Type: 135 Octane aviation fuel
Cause: Unknown
Comments: None reached waterway
Spill Information Source: Georgia Department of Natural Resources

S-0110-74

Georgia/Clinch/
Inland
July 20, 1974
Source: Unknown
Total Volume: 6,000 Gallons Volume in Water: 0
Type: Fuel oil
Cause: Unknown
Comments: Train wreck, no waterway involved
Spill Information Source: Georgia Department of Natural Resources

S-0111-74

Georgia/Dekalb/
August 3, 1974
Source: Unknown
Total Volume: 25-50 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Comments: Flushed by Fire Department
Spill Information Source: Georgia Department of Natural Resources

ILLINOIS

S-0112-74

Illinois/Madison/Marine
Inland stream - Silver Creek
June 3, 1974
Source: Onshore transportation - pipeline 22 inch
Total Volume: 126,000 Gallons Volume in Water: 126,000 Gallons
Type: Crude oil
Cause: Equipment failure - pipeline rupture
Containment: Booms and straw dams/skimming and dumping out
Comments: Containment and cleanup very good
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030101

S-0113-74

Illinois//Watseka
Inland
June 4, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: 11,000 Gallons Volume in Water: 0
Type: Number 2 oil
Cause: Equipment failure - valve
Containment: Contained in system, soaked into ground
Restoration: Vacuum, sorber
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029995

S-0114-74

Illinois/Clinton/Centralia
Inland
June 6, 1974
Source: Onshore nontransportation - gathering pipeline
Total Volume: 210 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Dammed/pumped out
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030049

S-0115-74

Illinois/Crawford/Oblong
Inland
June 6, 1974
Source: Onshore transportation - pipeline 4 inch
Total Volume: 420 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Dammed in depression/burned, heavy rain
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030050

S-0116-74

Illinois/Crawford/Oblong
Inland stream - Big Creek
June 14, 1974
Source: Onshore transportation - pipeline 4 inch
Total Volume: 1,260 Gallons Volume in Water: 1,260 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Comments: Banks were washed down to dam
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030102

S-0117-74

Illinois/Marion/Salem
Crooked Creek
June 15, 1974
Source: Onshore nontransportation - production pipeline 3 inch
Total Volume: 420 Gallons Volume in Water: 420 Gallons
Type: Crude oil
Cause: Equipment failure - pipe rupture
Containment: Dammed/sorber straw
Comments: Company cleanup effort was in progress
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030265

S-0118-74

Illinois/Crawford/Oblong
Inland stream - tributary to Dogwood Creek
June 20, 1974
Source: Onshore transportation - pipeline 4 inch
Total Volume: 1,260 Gallons Volume in Water: 1,260 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Straw dams/burning sorber straw
Comments: Built 2 straw dams to stop oil and 2 straw dams as a precaution in case of rain
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030104

S-0119-74

Illinois/Franklin/Benton
Inland
June 29, 1974
Source: Onshore transportation - pipeline 2 inch
Total Volume: 840 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Dammed, pumped out/sorber straw
Comments: Found oil contained in a natural drainage depression in plowed area. Oil reached no streams
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030282

INDIANA

S-0120-74

Indiana/Posey/Evansville
Inland
June 1, 1974
Source: Onshore nontransportation - oil production
Total Volume: 42 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - flow line leak
Containment: Natural depression/sorber straw, burned
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030051

S-0121-74

Indiana/Grant/Swayzee
Inland - Little Pipe Stream to Mississinewa River
June 9, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: 5,700 Gallons Volume in Water: 5,000 Gallons
Type: Number 2 oil
Cause: Deliberate discharge - vandalism
Containment: Soaked into ground - dispersed into water, sorber skimming; recovered 4,500-5,000 gallons
Comments: No oil seen reaching Mississinewa River
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030068

S-0122-74

Indiana/Posey/New Harmony
Inland
June 10, 1974
Source: Onshore nontransportation - oil production
Total Volume: 1,260 Gallons Volume in Water: 0
Type: Crude oil
Cause: Personnel error - incorrect valve handling
Containment: Natural depression/dammed, pumped out
Comments: Cleanup very good
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030007

S-0123-74

Indiana/Gibson/Sommerville
Inland stream - Halfmoon Ditch
June 19, 1974
Source: Onshore transportation - pipeline 2 inch
Total Volume: 6,300 Gallons Volume in Water: 6,300 Gallons
Type: Crude oil
Cause: Personnel error - farmer's plow pulled out pipe section
Containment: Booms and straw dams/none
Comments: Heavy rain washed out containments by causing stream to rise
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030103

S-0124-74

Indiana/Vanderburgh/Evansville
Inland river - Ohio
June 30, 1974
Source: Offshore transportation - tank barge
Total Volume: Unknown Volume in Water: Unknown
Type: Crude oil
Cause: Equipment failure - leak in tank barge
Containment: Dispersed into water/sorber - sorb-oil
Comments: Revisited 7/1/74 - leakage stopped
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030281

KENTUCKY

S-0125-74

Kentucky/McCracken/Paducah
Inland river - Tennessee, mile 3
June 5, 1974
Source: Offshore transportation - two boats
Total Volume: 25 Gallons Volume in Water: 25 Gallons
Type: Lube oil
Cause: Casualty - two boats tilted
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030191

S-0126-74

Kentucky/Henderson/Geneva
Inland
June 7, 1974
Source: Onshore transportation - 4-1/2 inch pipeline
Total Volume: 294 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion in pipeline
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030212

S-0127-74

Kentucky/Perry/Cornillsville
Inland stream - Bull Creek
June 7, 1974
Source: Onshore nontransportation - pipeline
Total Volume: 120 Gallons Volume in Water: 20 Gallons
Type: Crude oil
Cause: Equipment failure - pipeline break
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030214

S-0128-74

Kentucky/Boone/Ludlow
Inland river - Ohio, mile 474.8
June 12, 1974
Source: Unknown
Total Volume: 3 Gallons Volume in Water: 3 Gallons
Type: Motor oil
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030198

S-0129-74

Kentucky/Letcher/Prestonburg
Inland stream - Lick
June 14, 1974
Source: Onshore transportation - 2 inch pipeline
Total Volume: 210 Gallons Volume in Water: 210 Gallons
Type: Oil
Cause: Natural phenomenon - landslide cause by heavy rains
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030184

S-0130-74

Kentucky/Boone/Ludlow
Inland stream - Elijah
June 15, 1974
Source: Onshore nontransportation - storage tank
Total Volume: Unknown Volume in Water: Unknown
Type: Jet fuel
Cause: Equipment failure - gasket leak on storage tank
Comments: Cleanup contractor hired by company
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030182

S-0131-74

Kentucky/Whitley/Corbin
Inland
June 18, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 20,000 Gallons Volume in Water: 0
Type: Number 2 oil
Cause: Structural failure - storage tank rupture
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030173

S-0132-74

Kentucky/Fayette/Lexington
Inland
June 20, 1974
Source: Onshore transportation - highway truck cargo transfer
Total Volume: 100 Gallons Volume in Water: 0
Type: Gasoline
Cause: Equipment failure - transfer hose leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030167

S-0133-74

Kentucky/Pike/
Inland stream - Beefhide branch
June 22, 1974
Source: Onshore nontransportation - drain line on tank
Total Volume: 2 Quarts Volume in Water: 2 Quarts
Type: Crude oil
Cause: Natural phenomenon - drain line broken by high water
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030162

S-0134-74

Kentucky/Lawrence/Fallsburg
Inland stream - Blane Creek
June 23, 1974
Source: Onshore transportation - 6 inch pipeline
Total Volume: 630 Gallons Volume in Water: 630 Gallons
Type: Crude oil
Cause: Equipment failure - pipeline leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030160

S-0135-74

Kentucky/Estill/Irvine
Inland stream - Millers
June 26, 1974
Source: Onshore transportation - 2 inch pipeline
Total Volume: 1,680 Gallons Volume in Water: 1,680 Gallons
Type: Crude oil
Cause: Equipment failure - leak in pipeline
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030142

S-0136-74

Kentucky/Magoffin/Salyersville
Inland stream - Harry's Branch
June 26, 1974
Source: Onshore transportation - 4 inch pipeline
Total Volume: 420 Gallons Volume in Water: 420 Gallons
Type: Crude oil
Cause: Equipment failure - pipeline leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030145

S-0137-74

Kentucky/Boone/Ludlow
Inland stream - Dry Creek
June 29, 1974
Source: Onshore transportation - pipeline
Total Volume: 30 Gallons volume in Water: 30 Gallons
Type: JP-4
Cause: Equipment failure - pipeline leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030150

LOUISIANA

S-0138-74

Louisiana/Natchitoches/Natchitoches
Inland
June 4, 1974
Source: Onshore transportation - bulk cargo transfers
Total Volume: 50 Gallons Volume in Water: 0
Type: Gasoline
Cause: Equipment failure - hose rupture
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029944

S-0139-74

Louisiana/St. Martin/
Inland
June 7, 1974
Source: Onshore nontransportation - production unit
Total Volume: 126 Gallons   Volume in Water: 126 Gallons
Type: Crude oil
Cause: Equipment failure - heater-treater valve failed
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029980

S-0140-74

Louisiana/Claiborne/Homer
Inland stream - Flat Lick
June 8, 1974
Source: Onshore nontransportation - pipeline 6 inches
Total Volume: 1,260 Gallons   Volume in Water: 1,260 Gallons
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029977

S-0141-74

Louisiana/St. Martin/
Inland lake - swamp area
June 11, 1974
Source: Onshore nontransportation - pipeline
Total Volume: 85 Gallons   Volume in Water: 85 Gallons
Type: Crude oil
Cause: Equipment failure - line leak, internal corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030003

S-0142-74

Louisiana/Lafayette/Lafayette
Inland
June 17, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 3,000 Gallons   Volume in Water: 0
Type: Unknown
Cause: Structural failure - tank ruptured
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029930

S-0143-74

Louisiana/Richland/Delhi
Inland - Bar Ditch
June 18, 1974
Source: Onshore nontransportation - production flow line
Total Volume: 840 Gallons   Volume in Water: 840 Gallons
Type: Crude oil
Cause: Equipment failure - check valve
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030090

S-0144-74

Louisiana/Concordia Parish/Vidalia
Inland river - Mississippi
June 24, 1974
Source: Onshore nontransportation - oil production - 4 inch fiberglass flow line
Total Volume: 1,500 Gallons   Volume in Water: 1,500 Gallons
Type: Crude oil
Cause: Natural phenomenon - flooding river out of banks, undermined and ruptured flow line
Comments: Most oil washed down river
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030100

S-0145-74

Louisiana/St. Landry/Opelousas
Inland
June 27, 1974
Source: Onshore nontransportation - flow line
Total Volume: 850 Gallons   Volume in Water: 20 Gallons
Type: Crude oil
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030075

MAINE

S-0146-74

Maine/Cumberland/Portland
Coastal - port
June 2, 1974
Source: Offshore transportation - tanker
Total Volume: Unknown   Volume in Water: Unknown
Type: Oil
Cause: Personnel error - incorrect valve handling
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030424

S-0147-74

Maine/Hancock/Bucksport
Coastal - port
June 4, 1974
Source: Offshore transportation - tanker
Total Volume: 12 Gallons Volume in Water: 12 Gallons
Type: Number 6 oil
Cause: Deliberate discharge - pumping ballast
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030425

S-0148-74

Maine/Penobscot/Bangor
Inland river - Kenduskeag
June 7, 1974
Source: Onshore nontransportation - storage facility
Total Volume: 300 Gallons Volume in Water: 150 Gallons
Type: Number 2 oil
Cause: Structural failure - storage tank leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030482

S-0149-74

Maine/Washington/Milbridge
Coastal port - Narraguagus River
June 11, 1974
Source: Onshore nontransportation - processing
Total Volume: Unknown Volume in Water: 5 Gallons
Type: Waste (industrial) and grease
Cause: Deliberate discharge - disposal of waste oil
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030310

S-0150-74

Maine/Cumberland/Portland
Coastal harbor - Portland Harbor
June 11, 1974
Source: Offshore transportation - fishing vessel
Total Volume: 50 Gallons Volume in Water: 50 Gallons
Type: Number 6, Number 2 oil
Cause: Casualty - sinking, due to bilge pump failure
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030324

S-0151-74

Maine/Waldo/Searsport
Coastal port - Searsport Harbor
June 12, 1974
Source: Offshore transportation - tanker
Total Volume: Unknown Volume in Water: 1 Quart
Type: Lube oil
Cause: Equipment failure - leak in lube oil cooler in No. 3 generator
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030298

S-0152-74

Maine/Cumberland/Portland
Coastal port - Portland Harbor
June 14, 1974
Source: Offshore transportation - tanker
Total Volume: 42 Gallons Volume in Water: 42 Gallons
Type: Oil
Cause: Equipment failure - defective fitting valves
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030422

S-0153-74

Maine/Cumberland/Portland
Coastal port - Portland Harbor
June 17, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: 30 Gallons Volume in Water: 30 Gallons
Type: Oil
Cause: Equipment failure - separator overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030327

S-0154-74

Maine/Cumberland/Westbrook
Coastal port - Presumscot River
June 18, 1974
Source: Onshore nontransportation - car dealership
Total Volume: Unknown Volume in Water: Unknown
Type: Number 2 oil
Cause: Structural failure - storage tank leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030308

S-0155-74

Maine/Cumberland/Portland
Coastal port - Portland Harbor
June 21, 1974
Source: Offshore transportation - passenger ship
Total Volume: Unknown Volume in Water: 5 Gallons
Type: Number 2 oil
Cause: Personnel error - tank overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030309

S-0156-74

Maine/Waldo/Searsport
Coastal port - Searsport Harbor
June 22, 1974
Source: Offshore transportation - tanker
Total Volume: Unknown Volume in Water: 5 Gallons
Type: Bilge
Cause: Equipment failure - valve leakage
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030302

S-0157-74

Maine/Cumberland/Portland
Coastal port - Portland Harbor
June 25, 1974
Source: Offshore transportation - passenger vessel
Total Volume: Unknown Volume in Water: 10 Gallons
Cause: Personnel error - tank overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030305

S-0158-74

Maine/Cumberland/Portland
Coastal port - Portland Harbor
June 26, 1974
Source: Offshore transportation - passenger vessel
Total Volume: Unknown Volume in Water: 15-20 Gallons
Cause: Personnel error - tank overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030312

S-0159-74

Maine/Kennebec/Augusta
Inland river - Kennebec
June 26, 1974
Source: Onshore transportation - industrial plant
Total Volume: 100 Gallons Volume in Water: Unknown
Type: Number 2 oil
Cause: Deliberate discharge disposal of oil used to clean paper machine felts
Comments: Same type of spill on May 30, 1974, June 12, 1974
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030483

S-0160-74

Maine/Cumberland/Portland
Coastal port - Portland Harbor
June 27, 1974
Source: Offshore transportation - tanker
Total Volume: 40 Gallons Volume in Water: 40 Gallons
Type: Crude oil
Cause: Equipment failure - defective valves
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030313

S-0161-74

Maine/Penobscot/Brewer
Coastal port - Penobscot River
June 28, 1974
Source: Offshore transportation - tanker
Total Volume: 20 Gallons Volume in Water: 20 Gallons
Type: Number 2 oil
Cause: Structural failure - tank leakage
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030314

MAINE

S-0162-74

Maryland/Worcester/Ocean City
Coastal - Atlantic Ocean
June 5, 1974
Source: Offshore transportation - unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Oil
Containment: Not reported; removal/physical pickup
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029997

S-0163-74

Maryland/Ocean City to Asseteague Island
Coastal - Atlantic Ocean
June 6, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Crude oil
Cause: Unknown
Containment: Utilized local men and equipment at no cost to Federal government
Comments: Pollution covered coastline varying in accumulation; very heavy accumulation at Assateague Island
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030399

S-0164-74

Maryland/Baltimore/Clifford
Inland bay - Curtis
June 13, 1974
Source: Onshore transportation - rail general cargo
Total Volume: 3,000 Gallons Volume in Water: 3,000 Gallons
Type: Diesel fuel
Cause: Deliberate discharge - vandalism
Containment: Retained within system/removal - none
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029935

S-0165-74

Maryland/Baltimore/Baltimore
Coastal stream - Morton Creek
June 16, 1974
Source: Onshore nontransportation
Total Volume: Unknown Volume in Water: Unknown
Type: Waste
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030079

S-0166-74

Maryland/Baltimore/Baltimore
Coastal port - Baltimore Harbor
June 19, 1974
Source: Onshore nontransportation - terminal
Total Volume: Unknown Volume in Water: Unknown
Type: Diesel oil
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030083

S-0167-74

Maryland/Allegheny/Cumberland
Inland
June 21, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: 500 Gallons Volume in Water: 0
Type: Number 2 oil
Cause: Personnel error - tank overflow
Containment: Berms or walls/removal - vacuum
Comments: All of spilled oil contained within dike wall
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030098

MASSACHUSETTS

S-0168-74

Massachusetts/Middlesex/Woburn
Inland lake - Abayona
June 10, 1974
Source: Onshore nontransportation - processing plant
Total Volume: 1,500-3,000 Gallons Volume in Water: 700-1,500 Gallons
Type: Number 6 oil
Cause: Personnel error - improper hose connection
Comments: Driver not with truck when hose separated
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030303

S-0169-74

Massachusetts/Nantucket/Great Point
Coastal port - Atlantic Ocean
June 12, 1974
Source: Offshore transportation - tanker F/W NORTHWIND
Total Volume: Unknown Volume in Water: Unknown
Type: Unknown
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030323

S-0170-74

Massachusetts/Suffolk/Boston
Coastal port - Mystic River
June 15, 1974
Source: Onshore nontransportation - power plant
Total Volume: Unknown Volume in Water: Unknown
Type: Unknown
Cause: Equipment failure - pipe rupture
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030328

S-0171-74

Massachusetts/Bristol/New Bedford
Coastal port - Buzzards Bay
June 19, 1974
Source: Onshore nontransportation - processing plant
Total Volume: Unknown Volume in Water: Unknown
Type: Unknown
Cause: Deliberate discharge - disposal of waste oil
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030307

S-0172-74

Massachusetts/Middlesex/Ashland
Inland river - Sudburg
June 20, 1974
Source: Onshore nontransportation - industrial plant
Total Volume: 1 Gallon Volume in Water: Unknown
Type: Cutting oil
Cause: Personnel error, metal stampings left on dock
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030480

S-0173-74

Massachusetts/Suffolk/Boston
Coastal port - Boston Harbor
June 30, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: Unknown Volume in Water: Unknown
Type: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030467

MICHIGAN

S-0174-74

Michigan/Bay/Kawkawlin
Inland
June 1, 1974
Source: Onshore nontransportation - pipeline 3 inch
Total Volume: 2,520 Gallons Volume in Water: 0
Type: Crude oil
Cause: Casualty - abandoned gathering line struck by farmer's plow
Containment: Dug pit/vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number 72030060

S-0175-74

Michigan/Osceola/Sears
Inland
June 2, 1974
Source: Onshore nontransportation - pipeline 8 inch
Total Volume: 21 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Sorber-straw or other natural material
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030255

S-0176-74

Michigan/Gladwin/Winegars
Inland
June 2, 1974
Source: Onshore transportation - pipeline 6 inch
Total Volume: 210 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030256

S-0177-74

Michigan/Gladwin/Winegars
Inland
June 2, 1974
Source: Onshore transportation - pipeline 6 inch
Total Volume: 630 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Contained by berms or walls/vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030257

S-0178-74

Michigan/Gladwin/Winegars
Inland
June 3, 1974
Source: Onshore transportation - pipeline
Total Volume: 42 Gallons Volume in Water: 0
Type: Crude oil
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030254

S-0179-74

Michigan/Gladwin/Winegars
Inland
June 3, 1974
Source: Onshore transportation - pipeline
Total Volume: 42 Gallons Volume in Water: 0
Type: Crude oil
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030277

S-0180-74

Michigan/Missaukee/Norwich
Inland
June 6, 1974
Source: Onshore nontransportation - pipeline
Total Volume: 29,400 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - pipeline break
Containment: Diked/vacuum
Comments: Entirely contained within storage tank dikes
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030001

S-0181-74

Michigan/Gladwin/Winegars
Molassas River
June 8, 1974
Source: Onshore transportation - pipeline 4 inch
Total Volume: 6,300 Gallons Volume in Water: 5,000 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Boom/vacuum trucks, physical pickup, burn
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030058

S-0182-74

Michigan/Gladwin/Winegars
NA
June 10, 1974
Source: Onshore transportation - pipeline 4 inch
Total Volume: 168 Gallons volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Burning
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030061

S-0183-74

Michigan/Wayne/Romulus
Inland
June 11, 1974
Source: Onshore transportation - highway liquid bulk
Total Volume: 5,000 Gallons Volume in Water: 0
Type: Gasoline
Cause: Casualty - capsizing or overturning
Containment: Contained by berms or walls/vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030276

S-0184-74

Michigan/Clare/Harrison
Inland
June 14, 1974
Source: Onshore transportation - pipeline
Total Volume: 21 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Sorber - straw or other natural material
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030275

S-0185-74

Michigan/Allegan/Holland
Inland stream
June 14, 1974
Source: Onshore nontransportation - industrial plant
Total Volume: 500 Gallons Volume in Water: 500 Gallons
Type: Kerosene
Cause: Personnel error - improper hose connection
Containment: Berms/vacuum and sorber
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030332

S-0186-74

Michigan/Wayne/Lincoln Park
Inland stream - Ecorse Creek
June 19, 1974
Source: Unknown
Total Volume: 50 Gallons Volume in Water: 50 Gallons
Type: Number 2 oil
Cause: Unknown - discharge to storm sewer
Containment: Booms/sorbents, vactruck
Comments: Estimated 20 gallons recovered
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030121

S-0187-74

Michigan/Clare/Temple
Inland
June 19, 1974
Source: Onshore nontransportation - pipeline 4 inch
Total Volume: 84 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030273

S-0188-74

Michigan/Missaukee/Moorestown
Inland
June 19, 1974
Source: Onshore nontransportation - pipeline 6 inch
Total Volume: 2,940 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030274

S-0189-74

Michigan/Midland/North Bradley
Inland
June 20, 1974
Source: Onshore transportation - pipeline 6 inch
Total Volume: 84 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030271

S-0190-74

Michigan/Missaukee/McBain
Inland
June 20, 1974
Source: Onshore nontransportation - pipeline 4 inch
Total Volume: 2 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030272

S-0191-74

Michigan/Wayne/Trenton
Inland
June 24, 1974
Source: Onshore nontransportation
Total Volume: 1,016 Gallons Volume in Water: 0
Type: Fuel oil
Cause: Personnel error - tank overflow
Containment: Berm/vacuum
Comments: Contained mostly within diked area - leaked some to trench via rainwater drain
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030391

S-0192-74

Michigan/Missaukee/Vogel Center
Inland
June 26, 1974
Source: Onshore transportation - pipeline
Total Volume: 84 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - packing gland failure
Containment: Vacuum truck
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030270

MINNESOTA

S-0193-74

Minnesota/Koochiching/International Falls
Inland
June 3, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: 48,755 Gallons Volume in Water: 0
Type: Fuel oil
Cause: Structural failure - rubber fabric tank joint failed
Containment: Contained in dike and ditch; 48,755 gallons recovered
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030069

S-0194-74

Minnesota/Marshall/Stephen
Inland
June 3, 1974
Source: Onshore transportation - line #2, 26 inch
Total Volume: 210 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - pinhole leak
Containment: Soil being taken up
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030071

S-0195-74

Minnesota/Hennepin/Brooklyn Center
Inland - Shingle Creek
June 4, 1974
Source: Onshore nontransportation - commercial
Total Volume: Unknown Volume in Water: Unknown
Type: Oil
Cause: Runoff from parking lot
Containment: Shopping center will most likely put sorbent boom in creek or take some other measure
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030072

S-0196-74

Minnesota/Washington/Newport
Inland
June 11, 1974
Source: Onshore transportation - pump station
Total Volume: 5 Barrels Volume in Water: 0
Type: Gasoline
Cause: Equipment malfunction - relief valve stuck
Containment: Contained on property - 4 barrels recovered; remainder evaporated
Comments: Site very far away from any water
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030070

S-0197-74

Minnesota/Cass/Walker
Inland
June 24, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: 150 Gallons Volume in Water: 0
Type: Gasoline
Cause: Operator error - overfilled tank
Containment: Contained in dike, evaporated
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030261

S-0198-74

Minnesota/Wabasha/Lake City
Lake Pepin
June 26, 1974
Source: Offshore transportation - cruise ship
Total Volume: Unknown Volume in Water: Unknown
Type: Oil
Cause: Oily bilge
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030258

MISSISSIPPI

S-0199-74

Mississippi/Washington/Greenville
Inland lake - Ferguson
June 13, 1974
Source: Offshore transportation - barge
Total Volume: 50 Gallons Volume in Water: 50 Gallons
Type: Gasoline
Cause: Personnel error - tank overfill
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030186

S-0200-74

Mississippi/Jasper/Heidelberg
Inland stream - Horse Branch
June 15, 1974
Source: Onshore transportation - 2 inch pipeline
Total Volume: 3,800 Gallons Volume in Water: 3,800 Gallons
Type: Saltwater and oil
Cause: Equipment failure - 2 inch plug leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030183

S-0201-74

Mississippi/Washington/Greenville
Inland lake - Ferguson
June 18, 1974
Source: Offshore transportation - barge M/V MARY ANN
Total Volume: 30 Gallons Volume in Water: 30 Gallons
Type: Number 1 diesel oil
Cause: Personnel error - tank overflow during fuel transfer
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030174

S-0202-74

Mississippi/Wayne/Shubuta
Inland stream - Little Encutta Creek
June 19, 1974
Source: Onshore nontransportation - oil well
Total Volume: 13,000 Gallons Volume in Water: 2,000 Gallons
Type: Crude oil
Cause: Equipment failure - equipment failure due to electrical malfunction
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030171

S-0203-74

Mississippi/Washington/Greenville
Inland lake - Ferguson
June 22, 1974
Source: Onshore nontransportation - valve
Total Volume: 126 Gallons Volume in Water: 126 Gallons
Type: Number 6 oil
Cause: Equipment failure - blown gasket on valve
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030159

S-0204-74

Mississippi/Jasper/Heidelberg
Inland stream - Bocklehoma Creek
June 23, 1974
Source: Onshore nontransportation - oil flow line
Total Volume: 336 Gallons Volume in Water: 336 Gallons
Type: Crude oil
Cause: Equipment failure - leak in flow line
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030157

NEW HAMPSHIRE

S-0205-74

New Hampshire/Rockingham/Durham
Inland river - Oyster
June 4, 1974
Source: Onshore nontransportation - heating plant
Total Volume: 5 Gallons Volume in Water: Unknown
Type: Unknown
Cause: Equipment failure - hose leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030487

S-0206-74

New Hampshire/Rockingham/Somersworth
Inland river - Salmon Falls
June 14, 1974
Source: Onshore nontransportation - industrial plant
Total Volume: Unknown Volume in Water: Unknown
Type: Number 6 oil
Cause: Structural failure, storage tank leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030485

NEW MEXICO

S-0207-74

New Mexico/San Juan
Inland
June 4, 1974
Source: Onshore nontransportation - production tank
Total Volume: 10,500 Gallons Volume in Water: 0
Type: Crude oil
Cause: Personnel error - tank overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029697

S-0208-74

New Mexico/San Juan/Farmington
Inland
June 7, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: 2,940 Gallons Volume in Water: 0
Type: Crude oil
Cause: Deliberate discharge - vandalism
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030006

S-0209-74

New Mexico/Lea/Jal
Inland
June 17, 1974
Source: Onshore nontransportation - oil production
Total Volume: 2,520 Gallons Volume in Water: 0
Type: Crude oil
Cause: Structural failure - storage tank leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029927

NORTH CAROLINA

S-0210-74

North Carolina/Cleveland/Shelby
Inland
June 8, 1974
Source: Unknown
Total Volume: 8 Gallons Volume in Water: 0
Type: Gasoline
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030210

S-0211-74

North Carolina/Wake/Raleigh
Inland
June 9, 1974
Source: Onshore transportation - airplane
Total Volume: 20 Gallons Volume in Water: 0
Type: Jet fuel A
Cause: Personnel error - tank overflow during fuel operations
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030207

S-0212-74

North Carolina/Mecklenburg/Charlotte
Inland stream
June 9, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 100 Gallons Volume in Water: 100 Gallons
Type: Transformer oil
Cause: Personnel error - failure to pump tank out
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030208

S-0213-74

North Carolina/Orangeburg/Orangeburg
Inland
June 9, 1974
Source: Onshore transportation - highway operations
Total Volume: 6,200 Gallons Volume in Water: 0
Type: Number 6 oil
Cause: Casualty - truck accident
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030209

S-0214-74

North Carolina/Wake/Raleigh
Inland
June 13, 1974
Source: Onshore transportation - airplane fuel tank
Total Volume: 30 Gallons Volume in Water: 0
Type: Jet fuel
Cause: Personnel error - fuel tank overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030185

S-0215-74

North Carolina/Wake/Raleigh
Inland
June 13, 1974
Source: Onshore transportation - fuel tank of private jet
Total Volume: 30 Gallons Volume in Water: 0
Type: Jet fuel
Cause: Natural phenomenon - fuel boiled out of tank
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030187

S-0216-74

North Carolina/Lenoir/Kinston
Inland
June 13, 1974
Source: Onshore transportation - cargo transfer
Total Volume: 700 Gallons Volume in Water: 0
Type: Gasoline
Cause: Casualty - truck wreck
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030189

S-0217-74

North Carolina/Harnett/Dunn
Inland
June 17, 1974
Source: Onshore transportation - highway operation - tank truck
Total Volume: 400 Gallons Volume in Water: 0
Type: Asphalt AC-20
Cause: Casualty - truck overturned
Comments: 300 Gallons recovered
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030177

S-0218-74

North Carolina//Elizabeth City
Coastal - Atlantic Ocean
June 18, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Oil
Cause: Unknown
Comments: Cleanup deemed unjustified due to scattered condition, remoteness of area, and minor pollution threat
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030113

S-0219-74

North Carolina/Wake/Raleigh
Inland
June 18, 1974
Source: Onshore transportation - airport fuel truck
Total Volume: 5 Gallons Volume in Water: 0
Type: Jet fuel
Cause: Personnel error - tank overflow
Containment: Removed with fiberpearl
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030172

S-0220-74

North Carolina/Sampson/Clinton
Inland
June 18, 1974
Source: Onshore transportation - highway operation - tank truck
Total Volume: 4,000 Gallons Volume in Water: 0
Type: Gasoline
Cause: Casualty - truck accident
Containment: Fuel burned
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030175

S-0221-74

North Carolina/Person/Roxboro
Inland
June 20, 1974
Source: Onshore transportation - highway operations - tank truck
Total Volume: Unknown Volume in Water: 0
Type: Liquid asphalt
Cause: Casualty - truck flipped to avoid an accident
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030169

S-0222-74

North Carolina/Iredell/Statesville
Inland
June 20, 1974
Source: Onshore transportation - highway operation
Total Volume: 50 Gallons Volume in Water: 0
Type: Asphalt
Cause: Casualty - tank truck overturned
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030165

S-0223-74

North Carolina/Wautauga/Boone
Inland
June 20, 1974
Source: Onshore nontransportation - transformer
Total Volume: 78 Gallons Volume in Water: 0
Type: Transformer oil
Cause: Casualty - transformer fell off truck as it was turning into plant
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030166

S-0224-74

North Carolina/Wake/Durham
Inland
June 21, 1974
Source: Onshore nontransportation - service station
Total Volume: 50 Gallons Volume in Water: 0
Type: Fuel oil
Cause: Equipment failure - coupling failed while pumping
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030163

S-0225-74

North Carolina/Alamance/Hall River
Inland river - Hall
June 24, 1974
Source: Onshore nontransportation- boiler
Total Volume: 150 Gallons Volume in Water: 150 Gallons
Type: Number 6 oil
Cause: Equipment failure - boiler failure
Information Source Number: 72030139

S-0226-74

North Carolina/Watauga/Zionville
Inland river - Watauga
June 24, 1974
Source: Onshore transportation
Total Volume: 2,000 Gallons Volume in Water: 2,000 Gallons
Type: RC 250
Cause: Deliberate discharge - vandalism
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030158

S-0227-74

North Carolina/Gaston/Bessemer City
Inland
June 26, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 19,800 Gallons Volume in Water: 0
Type: Number 5 oil
Cause: Personnel error - tank overflow because of faulty pump
Containment: All fuel was contained by a dike
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030143

S-0228-74

North Carolina/Davidson/Cairo
Inland stream
June 26, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 15 Gallons Volume in Water: 15 Gallons
Type: Kerosene and asphalt
Cause: Deliberate discharge - pumping out a hole for installation of a storage tank
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030146

OHIO

S-0229-74

Ohio//Milford
Inland - Little Miami River
June 1, 1974
Source: Onshore transportation - railroad tank car
Total Volume: 20,000 Gallons Volume in Water: 20,000 Gallons
Type: Crude oil
Cause: Casualty - derailment
Containment: Boom/straw/commercial absorbents/rakes and vacuum truck utilized
Comments: 3,150 Gallons recovered
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030109

S-0230-74

Ohio/Cayuhoga/Cleveland
Inland - North Branch of Chicago River
June 13, 1974
Source: Onshore nontransportation - storm sewers
Total Volume: 1,250 Gallons Volume in Water: 1,250 Gallons
Type: Oil
Cause: Natural phenomenon - recent heavy rains caused oily runoff to storm sewers
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030116

S-0231-74

Ohio/Summit/Boston Heights
Inland - roadside drainage ditch
June 14, 1974
Source: Onshore transportation - highway liquid bulk
Total Volume: 2,700 Gallons Volume in Water: 0
Type: Gasoline
Cause: Casualty - collision
Comments: Spill estimated to have occurred 14 June. Gasoline entered roadside ditch. Company initiated cleanup
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030189

S-0232-74

Ohio/Noble/Brookfield Township
Inland
June 16, 1974
Source: Onshore nontransportation - oil production
Total Volume: 8,820 Gallons Volume in Water: 0
Type: Crude oil
Cause: Casualty - fire, lightning struck storage tank
Containment: All oil burned up
Comments: Spill allegedly occurred 16 June 1974. Investigation revealed no waters affected
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030344

OKLAHOMA

S-0233-74

Oklahoma/Osage
Inland stream - Buck Creek
June 1, 1974
Source: Onshore nontransportation - lead line
Total Volume: 420 Gallons Volume in Water: 420 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion

Spill Information Source: Environmental Protection Agency
Information Source Number: 72029945

S-0234-74

Oklahoma/Creek/Bristow
Inland stream
June 8, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 3,234 Gallons Volume in Water: 1,500 Gallons
Type: Crude oil
Cause: Casualty - tank struck by lightning
Comments: Oil on the creek was lost by flood waters
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029986

S-0235-74

Oklahoma/Lincoln/Davenport
Inland stream - Deep Fork
June 8, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: 7,560 Gallons Volume in Water: 7,560 Gallons
Type: Crude oil
Cause: Natural phenomenon - heavy rains - flooding - heavy winds
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029987

S-0236-74

Oklahoma/Osage/Shidler
Inland stream - Little Chief Creek
June 11, 1974
Source: Onshore transportation - 7 inch pipeline
Total Volume: 420 Gallons Volume in Water: 420 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029939

S-0237-74

Oklahoma/Creek/New Manford
Inland stream - Little Salt Creek
June 12, 1974
Source: Onshore nontransportation
Total Volume: 800 Gallons Volume in Water: 800 Gallons
Type: Crude oil
Cause: Natural phenomenon - flooding
Containment: Some oil dispersed in flood waters
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030222

S-0238-74

Oklahoma/Pottawatomie/Maud
Inland stream - Salt Creek
June 14, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 8,400 Gallons Volume in Water: 8,400 Gallons
Type: Crude oil
Cause: Deliberate discharge - vandalism
Comments: Cleanup is complete
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030394

S-0239-74

Oklahoma/Garvin/NE 1/4 Section 30
Inland stream
June 20, 1974
Source: Onshore transportation - pipeline 3 inch
Total Volume: 1,260 Gallons Volume in Water: 1,260 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Containment: Burning of entire spill
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030105

S-0240-74

Oklahoma/Roger Mills/Sayre
Inland
June 24, 1974
Source: Onshore transportation - pipeline 10 inch
Total Volume: 31,500 Gallons Volume in Water: 0
Type: Crude oil
Cause: Collision between vehicle and source
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030099

PENNSYLVANIA

S-0241-74

Pennsylvania/Delaware/Marcus Hook
Coastal river - Delaware
June 1, 1974
Source: Onshore nontransportation - refinery
Total Volume: 15 Gallons Volume in Water: 15 Gallons
Type: Number 6 oil
Cause: Equipment failure - valve
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029685

S-0242-74

Pennsylvania/York/Delta
Inland river - Susquehana
June 1, 1974
Source: Onshore nontransportation - industrial plant
Total Volume: 100 Gallons Volume in Water: 10 Gallons
Type: Lube oil
Cause: Equipment failure - defective fitting valves
Containment: Contained by berms or walls - removal/vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029689

S-0243-74

Pennsylvania/Allegheny/Pittsburgh
Inland
June 2, 1974
Source: Onshore transportation - rail engine
Total Volume: 3,000 Gallons Volume in Water: 0
Type: Diesel fuel
Cause: Casualty/collision between source and another vehicle
Containment: Contained by berms or walls - removal/vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029684

S-0244-74

Pennsylvania/Allegheny/Pittsburgh
Inland stream - Saw Mill Run
June 2, 1974
Source: Onshore transportation - highway liquid bulk
Total Volume: 2,000 Gallons Volume in Water: Unknown
Type: Number 6 oil
Cause: Deliberate discharges - vandalism
Containment: Contained by berms or walls - removal/physical pickup
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030012

S-0245-74

Pennsylvania/Allegheny/Pittsburgh
Inland river - Mon River
June 3, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: Unknown Volume in Water: 0
Type: Gasoline
Cause: Structural failure - tank rupture
Containment: Contained by berms or walls - removal/vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029680

S-0246-74

Pennsylvania/Philadelphia/Philadelphia
Coastal river - Delaware
June 4, 1974
Source: Onshore transportation - unknown
Total Volume: 200 Gallons Volume in Water: 200 Gallons
Type: Number 2 oil
Cause: Unknown
Containment: Contained by berms or walls - removal/vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030013

S-0247-74

Pennsylvania//Greentree
Tributary to Sawmill Run
June 5, 1974
Source: Onshore transportation - railroad tank truck
Total Volume: Unknown Volume in Water: Unknown
Type: Number 6 oil
Cause: Deliberate discharge - vandalism
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030114

S-0248-74

Pennsylvania/Crawford/Titusville
Inland
June 5, 1974
Source: Onshore nontransportation - refinery
Total Volume: 50 Gallons Volume in Water: 0
Type: Diesel fuel
Cause: Unknown
Containment: Controlled but method not reported; removal unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030002

S-0249-74

Pennsylvania/Berks/Reading
Inland stream - Schuylkill
June 6, 1974
Source: Onshore nontransportation - industrial plant
Total Volume: 10 Gallons Volume in Water: 10 Gallons
Type: Waste
Cause: Personnel error
Containment: Dispersed into water - removal/water spray
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029696

S-0250-74

Pennsylvania/Delaware/Marcus Hook
Coastal river - Delaware
June 6, 1974
Source: Onshore nontransportation - refinery
Total Volume: 100 Gallons Volume in Water: 100 Gallons
Type: Oil/waste
Cause: Equipment failure - pipe rupture
Containment: Contained by berms or walls - removal/vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030016

S-0251-74

Pennsylvania/Philadelphia/Philadelphia
Coastal river - Schuylkill
June 6, 1974
Source: Onshore nontransportation - unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Waste
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030019

S-0252-74

Pennsylvania/Montgomery/Norristown
Inland
June 6, 1974
Source: Onshore transportation - highway fueling
Total Volume: 50 Gallons Volume in Water: 0
Type: Gasoline
Cause: Unknown
Containment: Contained by berms or walls - removal/physical pickup
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029978

S-0253-74

Pennsylvania/Philadelphia/Philadelphia
Coastal stream - Delaware
June 6, 1974
Source: Onshore transportation - highway liquid bulk
Total Volume: 15 Gallons Volume in Water: 15 Gallons
Type: Gasoline
Cause: Unknown
Containment: Dispersed into water - removal/water spray
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029998

S-0254-74

Pennsylvania/Allegheny/Pittsburgh
Inland river - Allegheny
June 7, 1974
Source: Onshore nontransportation - industrial plant
Total Volume: Unknown Volume in Water: Unknown
Type: Lube oil
Cause: Equipment failure - loose fitting valves or closure
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030008

S-0255-74

Pennsylvania/Bucks/Lower Makefield
Inland stream - Brock Creek
June 10, 1974
Source: Onshore transportation - highway general cargo
Total Volume: Unknown Volume in Water: Unknown
Type: Lube oil - gasoline
Cause: Casualty - capsizing or overturning
Containment: Unknown/removal - sorbent (straw or other natural material)
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029934

S-0256-74

Pennsylvania/Cumberland/Mount Holly
Inland stream - Mountain Creek
June 12, 1974
Source: Onshore transportation - highway liquid bulk
Total Volume: 100 Gallons Volume in Water: 100 Gallons
Type: Diesel fuel
Cause: Casualty - capsizing or overturning
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029936

S-0257-74

Pennsylvania/Allegheny/Bridgeveille
Inland stream - Charters Run
June 28, 1974
Source: Onshore nontransportation
Total Volume: 150 Gallons Volume in Water: 150 Gallons
Type: Industrial
Cause: Unknown
Containment: Containment controlled but method not reported/removal
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030374

S-0258-74

Pennsylvania/Beaver/Freedom
Inland river - Ohio
June 29, 1974
Source: Onshore nontransportation - refinery
Total Volume: Unknown Volume in Water: Unknown
Type: Waste
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030229

RHODE ISLAND

S-0259-74

Rhode Island/Providence/Providence
Coastal port - Providence
June 4, 1974
Source: Offshore transportation - tanker
Total Volume: 250 Gallons Volume in Water: 250 Gallons
Type: Number 6 oil
Cause: Equipment failure - valve failure
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030443

SOUTH CAROLINA

S-0260-74

South Carolina/Orangeburg/Orangeburg
Inland
June 10, 1974
Source: Onshore transportation - highway operation tank truck
Total Volume: 6,200 Gallons Volume in Water: 0
Type: Number 6 oil
Cause: Casualty - truck accident
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030204

S-0261-74

South Carolina/Lexington/Columbia
Inland lake - Murray
June 26, 1974
Source: Onshore nontransportation - road resurfacing
Total Volume: 2 Quarts Volume in Water: 2 Quarts
Type: RT 3 priming
Cause: Natural phenomenon - heavy rain washed priming oil into the lake
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030144

S-0262-74

Tennessee/Davidson/Nashville
Inland stream - Richland
June 3, 1974
Source: Onshore nontransportation - drain in wash rack area
Total Volume: Unknown Volume in Water: Unknown
Type: Waste
Cause: Personnel error - allowing oil to get in wash rack
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030195

S-0263-74

Tennessee/Hamilton/Chattanooga
Inland river - Tennessee, mile 472
June 3, 1974
Source: Offshore transportation - private boat
Total Volume: 50 Gallons Volume in Water: 50 Gallons
Type: Gasoline
Cause: Casualty - fire on boat
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030196

S-0264-74

Tennessee/Morgan/Burrville
Inland stream - Cal Hurst branch
June 7, 1974
Source: Onshore nontransportation - well head
Total Volume: 13,000 Gallons Volume in Water: 13,000 Gallons
Type: Crude oil
Cause: Equipment failure - faulty blowout preventor
Comments: Quantity removed was complete
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030215

S-0265-74

Tennessee/Hardin/Savannah
Inland stream - Town Creek
June 10, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Number 2 diesel oil
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030201

S-0266-74

Tennessee/Shelby/Memphis
Inland
June 10, 1974
Source: Onshore nontransportation - loading hose
Total Volume: 5 Gallons Volume in Water: 0
Type: Gasoline
Cause: Casualty - car ran over hose and it ruptured
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030202

S-0267-74

Tennessee/Morgan/Burrville
Inland stream - Cal Hurst branch
June 10, 1974
Source: Onshore nontransportation - oil pit at well
Total Volume: 500 Gallons Volume in Water: 500 Gallons
Type: Crude oil
Cause: Personnel error - allowing an oil pit to overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030206

S-0268-74

Tennessee/Madison/Jackson
Inland
June 11, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 302 Gallons Volume in Water: 0
Type: Gasoline
Cause: Personnel error - tank overfill
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030200

S-0269-74

Tennessee/Sullivan/Kingsport
Inland
June 15, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 600 Gallons Volume in Water: 0
Type: Gasoline
Cause: Personnel error - tank overfill
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030181

S-0270-74

Tennessee/Shelby/Memphis
Inland lake - McKellar
June 16, 1974
Source: Offshore transportation - barge
Total Volume: 2 Gallons Volume in Water: 2 Gallons
Type: Crude oil
Cause: Personnel error - loading hose pulled loose
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030178

S-0271-74

Tennessee/Hamilton/Chattanooga
Inland river - Tennessee, mile 456.9
June 25, 1974
Source: Offshore transportation - M/V JOHN HENRY
Total Volume: 3 Gallons Volume in Water: 3 Gallons
Type: Oil
Cause: Equipment failure - leak in quick connect coupling
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030140

TEXAS

S-0272-74

Texas/Dallas/Dallas
Inland lake - White Rock
June 3, 1974
Source: Onshore transportation - highway liquid bulk
Total Volume: 1,000 Gallons Volume in Water: 1,000 Gallons
Type: Diesel oil
Cause: Deliberate discharge - vandalism
Comments: Previous spill in same area
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029691

S-0273-74

Texas/Tarrant/Fort Worth
Inland stream - Marine Creek
June 4, 1974
Source: Onshore transportation - 6 inch line
Total Volume: 15,750 Gallons Volume in Water: 15,750 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030005

S-0274-74

Texas/Jack/Jacksboro
Inland stream
June 5, 1974
Source: Onshore nontransportation - oil production
Total Volume: 2,520 Gallons Volume in Water: 2,520 Gallons
Type: Crude oil
Cause: Personnel error - other valve opened by cow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029695

S-0275-74

Texas/Montague/Nocona
Inland stream - Crooked Creek
June 5, 1974
Source: Onshore transportation - gathering line 4 inches
Total Volume: 25,200 Gallons Volume in Water: 24,000 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029947

S-0276-74

Texas/El Paso/El Paso
Inland
June 6, 1974
Source: Onshore nontransportation - storage tank
Total Volume: 650 Gallons Volume in Water: 0
Type: Gasoline
Cause: Personnel error
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030091

S-0277-74

Texas/Wood/
Inland - Sabine River
June 7, 1974
Source: Onshore nontransportation - flow line
Total Volume: 126 Gallons Volume in Water: 126 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029979

S-0278-74

Texas/Gregg/Longview
Inland
June 8, 1974
Source: Onshore nontransportation - oil production
Total Volume: 336 Gallons Volume in Water: 0
Type: Crude oil
Cause: Equipment failure - valve
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029981

S-0279-74

Texas/Gregg/Kilgore
Inland stream - Turkey Creek
June 9, 1974
Source: Onshore nontransportation - pipeline
Total Volume: 420 Gallons Volume in Water: 420 Gallons
Type: Crude oil
Cause: Equipment failure - pipeline break
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029982

S-0280-74

Texas/Gregg/Kilgore
Inland stream - Rabbit Creek
June 9, 1974
Source: Onshore nontransportation - flow line
Total Volume: 840 Gallons Volume in Water: 840 Gallons
Type: Crude oil
Cause: Casualty - line struck by vehicle
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029983

S-0281-74

Texas/Gregg/White Oak
Inland stream
June 11, 1974
Source: Onshore nontransportation - 4 inch production gathering line
Total Volume: 504 Gallons Volume in Water: 504 Gallons
Type: Crude oil
Cause: Casualty - line run over by backhoe
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030020

S-0282-74

Texas/Hopkins/Riley Springs
Inland
June 12, 1974
Source: Onshore nontransportation - tank
Total Volume: 210 Gallons Volume in Water: 0
Type: Crude oil
Cause: Natural phenomenon - pump struck by lightning
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029940

S-0283-74

Texas/Mitchell/Colorado City
Inland river - Colorado
June 13, 1974
Source: Onshore transportation - 6 inch pipeline
Total Volume: 4,200 Gallons Volume in Water: 4,200 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030094

S-0284-74

Texas/Jack/Jacksboro
Inland stream - dry slough
June 15, 1974
Source: Onshore nontransportation - oil production, saltwater storage with oil blanket on top
Total Volume: 210 Gallons Volume in Water: Unknown
Type: Oil
Cause: Equipment failure - high level switch failed to operate; overflow resulted
Comments: 195 barrels of saltwater also spilled
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030087

S-0285-74

Texas/Rusk/Kilgore
Inland stream
June 17, 1974
Source: Onshore nontransportation - oil production (gathering line)
Total Volume: 210 Gallons Volume in Water: 84 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030088

S-0286-74

Texas/Anderson/Tucker
Inland river - Trinity
June 19, 1974
Source: Onshore transportation
Total Volume: 630 Gallons Volume in Water: 200 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030076

S-0287-74

Texas/Fayette/La Grange
Inland
June 19, 1974
Source: Onshore transportation - 10 inch pipeline
Total Volume: 210 Gallons Volume in Water: 0
Type: Natural gas liquids
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030089

S-0288-74

Texas/Gregg/Gladewater
Inland river - Sabine
June 19, 1974
Source: Onshore nontransportation - production well
Total Volume: 420 Gallons Volume in Water: 420 Gallons
Type: Crude oil
Cause: Personnel error - casing valve left open
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030092

S-0289-74

Texas/Gregg/
Inland stream - small slough
June 20, 1974
Source: Onshore nontransportation - oil production ease
Total Volume: 1,260 Gallons Volume in Water: 1,260 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030093

S-0290-74

Texas/Harrison/Marshall
Inland stream
June 20, 1974
Source: Onshore transportation - production 4 inch gathering line
Total Volume: 1,260 Gallons Volume in Water: 40 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030106

S-0291-74

Texas/Smith/Tyler
Inland lake
June 21, 1974
Source: Onshore nontransportation - pipeline
Total Volume: 630 Gallons Volume in Water: 630 Gallons
Type: Unknown
Cause: Equipment failure - corrosion
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030077

S-0292-74

Texas/Rusk/Leverett's Chapel
Inland stream - Rabbit Creek
June 21, 1974
Source: Onshore transportation - gas pipeline
Total Volume: 40 Gallons Volume in Water: 40 Gallons
Type: Crude oil
Cause: Personnel error during pipeline maintenance
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030074

S-0293-74

Texas/Orange/Orange
Inland - canal and marsh
June 25, 1974
Source: Onshore nontransportation - oil production
Total Volume: 210 Gallons Volume in Water: 210 Gallons
Type: Crude oil
Cause: Equipment failure - heater-treater malfunction
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030073

S-0294-74

Texas/Harrison/Leigh
Inland stream - Watson Bayou
June 21, 1974
Source: Onshore transportation - pipeline
Total Volume: 63,000 Gallons Volume in Water: 16,800 Gallons
Type: Crude oil
Cause: Casualty - line struck by road grader
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030372

S-0295-74

Texas/Marion/McLeod
Inland stream - Moss Mill
June 26, 1974
Source: Onshore transportation - 6 inch pipeline
Total Volume: 2,100 Gallons Volume in Water: 2,100 Gallons
Type: Crude oil
Cause· Equipment failure - corrosion leak
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030086

S-0296-74

Texas/Wood/Hawkins
Inland stream - Rogers Creek
June 27, 1974
Source: Onshore transportation - 8 inch pipeline
Total Volume: 331,800 Gallons Volume in Water: 325,000 Gallons
Type: Crude oil
Cause: Structural failure - transportation pipeline rupture
Restoration: Recovered 322,560 Gallons
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030389

S-0297-74

Texas/Houston/Grapeland
Inland
June 28, 1974
Source: Onshore nontransportation - gas production (condensate tank)
Total Volume: 630 Gallons Volume in Water: 0
Type: Condensate
Cause: Other - cow licked open drain valve from tank battery
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030063

VERMONT

S-0298-74

Vermont/Windsor/South Royalton
Inland river - White River
June 28, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: 1,000 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Personnel error - tank overflow
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030481

VIRGINIA

S-0299-74

Virginia/Roanoke/Roanoke
Inland
June 5, 1974
Source: Onshore nontransportation
Total Volume: 1 Gallon Volume in Water: 0
Type: Lube oil
Cause: Unknown
Containment: Controlled method not reported
Restoration: Removal - unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029693

S-0300-74

Virginia/Pittsylvania/Danville
Inland - Dan River
June 5, 1974
Source: Onshore transportation - rail fueling
Total Volume: 85 Gallons Volume in Water: 85 Gallons
Type: Number 2 oil
Cause: Equipment failure - valve
Containment: Contained by berms or walls - removal unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029999

S-0301-74

Virginia/Nickelsville/15 miles east of Nickelsville (U.S. 71)
Inland
June 5, 1974
Source: Onshore transportation - highway operation
Total Volume: 2,000 Gallons Volume in Water: 0
Type: Gasoline
Cause: Casualty - truck accident
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030192

S-0302-74

Virginia/Giles/Rich Creek
Inland - New River
June 6, 1974
Source: Onshore transportation - unknown
Total Volume: 300 Gallons Volume in Water: Unknown
Type: Gasoline
Cause: Unknown
Containment: Soaked into ground, removal unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030009

S-0303-74

Virginia/Scott/Nicklesville
Inland stream - Copper's Creek
June 6, 1974
Source: Onshore transportation - highway liquid bulk
Total Volume: 2,000 Gallons Volume in Water: 50 Gallons
Type: Gasoline
Cause: Casualty - capsizing or overturning
Containment: Contained by berms or walls - removal
Restoration: Sorbent - straw
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030010

S-0304-74

Virginia/Roanoke/Roanoke
Inland
June 14, 1974
Source: Onshore transportation - rail fueling
Total Volume: 1,500 Gallons Volume in Water: 0
Type: Diesel fuel
Cause: Casualty - collision between source and another vehicle
Containment: Soaked into ground/removal - physical pickup
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029937

S-0305-74

Virginia/Prince/William
Inland - Occoguan Reservoir
June 17, 1974
Source: Onshore transportation - garbage truck
Total Volume: 30 Gallons Volume in Water: 30 Gallons
Type: Gasoline
Cause: Casualty - capsizing or overturning
Containment: Dispersed into water/removal - water spray
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030078

WEST VIRGINIA

S-0306-74

West Virginia/Kanawha/Falling Rock
Inland stream - Falling Rock Creek
June 2, 1974
Source: Onshore nontransportation - refinery
Total Volume: 40 Gallons Volume in Water: 10 Gallons
Type: Waste
Cause: Natural phenomenon - flooding
Containment: Contained by berms or walls - removal/sorbent
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029686

S-0307-74

West Virginia/Tyler/Shirley
Inland
June 3, 1974
Source: Onshore transportation - transportation pipeline
Total Volume: 1,050 Gallons Volume in Water: 0
Type: Crude oil
Cause: Natural phenomenon - tree fell on line
Containment: Contained by berms or walls - removal/vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029681

S-0308-74

West Virginia/Lewis/Vadis
Inland stream - Fink Creek
June 3, 1974
Source: Onshore transportation - transportation pipeline - 2 inch gravity
Total Volume: 840 Gallons Volume in Water: Unknown
Type: Crude oil
Cause: Personnel error - ruptured by dozer
Containment: Contained by berms or walls - removal/vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029687

S-0309-74

West Virginia/Monongahela/Morgantown
Inland river - Monongahela
June 14, 1974
Source: Onshore nontransportation - bulk storage
Total Volume: Unknown Volume in Water: Unknown
Type: Crude oil
Cause: Structural failure - storage tank leak
Containment: Dug pit/skimming
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029928

S-0310-74

West Virginia/Pleasants/Belmont
Inland stream - French Creek
June 12, 1974
Source: Onshore transportation - transportation pipeline 6 inch
Total Volume: 1,400 Gallons Volume in Water: 200 Gallons
Type: Crude oil
Cause: Equipment failure - corrosion or rust
Containment: Contained by berms or walls/removal-vacuum
Spill Information Source: Environmental Protection Agency
Information Source Number: 72029933

S-0311-74

West Virginia/Mason/Eight Mile Island
Inland river - Ohio
June 17, 1974
Source: Offshore transportation
Total Volume: Unknown Volume in Water: Unknown
Type: Diesel fuel
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030067

S-0312-74

West Virginia/Calhoun/Grantsville
Inland
June 21, 1974
Source: Onshore nontransportation - field stock tank
Total Volume: 3,360 Gallons Volume in Water: 0
Type: Crude oil
Cause: Natural phenomenon - lightning
Containment: Soaked into ground/physical pickup
Comments: 80 bbls were in tank when it was struck by lightning, but most of the oil burned
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030082

S-0313-74

West Virginia//Huntington
Inland - Four Pole Creek
June 24, 1974
Source: Onshore transportation - highway
Total Volume: 1,800 Gallons Volume in Water: 1,800 Gallons
Type: Waste crankcase with traces of chlorine
Cause: Deliberate discharge - dumping of residue from a tank truck cleaning operation
Comments: Estimated 90-100% fish kill in affected area
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030111

S-0314-74

West Virginia//Centersville
Inland stream - Smith branch of White's
June 24, 1974
Source: Onshore nontransportation storage
Total Volume: 1,500 Gallons Volume in Water: 1,500 Gallons
Type: Crude oil
Cause: Natural phenomenon - rain caused overflowing of settling pond
Comments: Owner will bulldoze pond over and shut down when water table gets low enough
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030137

S-0315-74

West Virginia/Cabell/
Inland stream - Four Pole Creek
June 26, 1974
Source: Onshore transportation - highway liquid bulk
Total Volume: 1,800 Gallons Volume in Water: 1,800 Gallons
Type: Waste (used oil - chlorine mixture)
Cause: Deliberate discharge - disposal of waste oil
Comments: Extensive fish kill observed (3,000 estimated dead)
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030062

WISCONSIN

S-0316-74

Wisconsin/Pepin/Deer Island
Lake Pepin
June 26, 1974
Source: Unknown
Total Volume: Unknown Volume in Water: Unknown
Type: Oil
Cause: Unknown
Spill Information Source: Environmental Protection Agency
Information Source Number: 72030251

SECTION II.

PUBLICATIONS AND REPORTS

A. OIL POLLUTION DETECTION AND EVALUATION

1. MONITORING

C-001-74
DETECTION OF POLLUTANTS IN WATER BY RAMAN SPECTROSCOPY

Braeunlich, G., G. Gamers, and M. S. Petty. 1973.
Water Research. 7(11):1643-1647.

Raman spectroscopy on a pollution monitoring device is discussed with special reference given to the CH-stretching vibration bands of possible impurities. The detection range was determined to be 1-10 ppm.

Citation Source: Biological Abstracts. 1974. 58(1).
Entry #5184.

C-002-74
THE INTEGRATED GLOBAL OCEAN STATION SYSTEM (IGOSS)

Junghans, R. and R. Zachariason. 1974.
Environmental Data Service, U. S. Department of Commerce, July.

At the present IGOSS participants transmit ocean temperature and some salinity measurements to national IGOSS collection centers where they are then disseminated worldwide. Future plans for IGOSS include development of a Marine Pollution Monitoring Pilot Project.

Citation Source: Citation Journal.

C-003-74
ESTIMATE OF ANNUAL INPUT OF PETROLEUM TO THE MARINE ENVIRONMENT FROM NATURAL MARINE SEEPAGES

Wilson, R. D. and P. H. Monaghan. 1973.
Transactions, Gulf Coast Association of Geological Societies. 23:182-193.

Total natural seepage range is thought to be 0.2-6.0, with 0.6 million metric tons/year being the best estimate.

Citation Source: Chemical Abstracts. 1974. 81(4).
Entry #15296X.

2. REMOTE SENSING

C-004-74
OPTICAL DETECTION OF OIL ON WATER

Anonymous. 1973
NASA Tech. Brief B73-10268. July, 1 p.

The following radiometric techniques using refracted and backscattered sunlight from water are summarized: Fresnel front-surface reflectance, Rayleigh skylight polarization, experimental measurements of skylight intensity and polarization and airborne measurements of total radiance under clear and overcast skies.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03400.

C-005-74
OILSPILLS: MEASUREMENTS OF THEIR DISTRIBUTIONS AND VOLUMES BY MULTIFREQUENCY MICROWAVE RADIOMETRY

Hollinger, J. P. and R. A. Mennella. 1973.
Science. 181(4094):54-56.

Using aircraft-borne multifrequency passive microwave measurements, sea-surface oil slicks can be measured for oil distribution, regions of thickness, and oil volume at any time during any weather.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03278.

C-006-74
THE APPEARANCE AND VISIBILITY OF THIN OIL FILMS ON WATER

Hornstein, B. 1972.
U. S. Environmental Protection Agency. Office of Research and Monitoring. Environmental Protection Technology Series EPA-R2-72-039. August, 72 p.

Thin oil film characteristics on water were examined in order to develop a method of visual detection of oil spills. Time of day, weather and water conditions, and viewing angle were considered.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03342.

C-007-74
AN AIRBORNE LASER FLUOROSENSOR FOR THE DETECTION OF OIL ON WATER

Kim, H. H. and G. D. Hickman. 1973.
In: Joint Conference on Sensing of Environmental Pollutants.
2nd, Washington, D. C., December 10-12, Proceedings.

An airborne laser fluorsensor has successfully been used to detect and map surface oil with a greater degree of sensitivity than conventional passive remote sensors.

Citation Source: International Aerospace Abstracts 14(13).
1974. Entry #A74-29724.

C-008-74
VIDEO SYSTEMS FOR REAL-TIME OIL-SPILL DETECTION

Millard, J. P., J. C. Arvesen, P. L. Lewis, and G. F. Woolever.
1973.
In: Joint Conference on Sensing of Environmental Pollutants.
2nd, Washington, D. C., December 10-12, Proceedings.

A conventional TV camera, cameras operating in a subtractive mode, and a field-sequential camera are three types of airborne television systems being developed to detect oil spills. The potential and limitations are discussed for these three systems.

Citation Source: International Aerospace Abstracts. 1974.
14(13). Entry #A74-29722.

C-009-74
COAST GUARD AIRBORNE REMOTE SENSING SYSTEM

Mills, B. C. 1973.
In: Joint Conference on Sensing of Environmental Pollutants,
2nd, Washington, D. C., December 10-12, Proceedings.

The U. S. Coast Guard's Airborne Remote Sensing System is described including their aircraft and pollutant detection equipment.

Citation Source: International Aerospace Abstracts. 1974.
14(13). Entry #A74-29723.

C-010-74
DETECTION OF WATER POLLUTION SOURCES WITH AERIAL IMAGING SENSORS

Rudder, C. L. and C. J. Reinheimer. 1973.
In: Joint Conference on Sensing of Environmental Pollutants, 2nd, Washington, D. C., December 10-12, Proceedings.

The value of aerial remote sensing to reveal pollution and the need for interpretation keys to evaluate and interpret the resultant data are explained.

Citation Source: International Aerospace Abstracts. 1974. 14(13). Entry #A74-29708.

C-011-74
ERTS-1 VIEWS AN OIL SLICK?

Stumpf, H. G. and A. E. Strong. 1974.
Remote Sensing of Environment. 3(1):87-90.

Using a multispectral scanner subsystem aboard an ERTS-1, an obtained image is believed to be that of an unreported oil slick off Maryland and Virginia. Internal waves are also believed to be evident west of the alleged oil slick.

Citation Source: Citation Journal.

C-012-74
DETECTING AND MONITORING OIL SLICKS WITH AERIAL PHOTOS

Vizy, K. N. 1974.
Photogrammetric Engineering. 40:697-708.

Tests were conducted to determine the feasibility of oil slick detection and monitoring using aerial photography. In evaluating spectral region capabilities, ultraviolet and blue were significant, infrared was less, and green and red were insignificant.

Citation Source: International Aerospace Abstracts. 1974. 14(15). Entry #A74-33071.

C-013-74
AERIAL SPILL PREVENTION SURVEILLANCE DURING SUB-OPTIMUM WEATHER

Welch, R. I., A. D. Marmelstein, and P. M. Maughan. 1973.
Environmental Protection Agency, Technology Series EPA-R2-73-243, 55 p. September.

During conditions of specified cloud cover and reduced visibility multiband aerial photography was done in order to develop a rapid detection system for oil spills. A high sensitivity color positive film was the only film to provide consistently interpretable results.

Citation Source: Selected Water Resources Abstracts. 1974. 7(14). Entry #5A W74-07342.

3. SAMPLING

C-014-74
[OIL GLOBULES AND THEIR ATTACHED ORGANISMS IN THE EAST CHINA SEA AND THE KUROSHIO AREA] Japanese with English abstract.

Marumo, R. and K. Kamada. 1973.
Nippon Kaiyo Gakkai-Shi. 29(4):155-158

Oil globules, as dense as 11 mg/m^3 wet wt., were widely distributed along 125°E in the East China Sea and Kuroshio area during May, 1971. Various marine plants and animals were found attached to the globules.

Biological Effects

Citation Source: Oceanic Abstracts. 1974. 11(4).
Entry #74-03715.

C-015-74
NEW SAMPLING DEVICE FOR THE RECOVERY OF PETROLEUM HYDROCARBONS AND FATTY ACIDS FROM AQUEOUS SURFACE FILMS

Miget, R., H. Kator, C. Oppenheimer, J. L. Laseter, and E. J. Ledet. 1974.
Analytical Chemistry 46(8):1154-1157.

A surface slick sampler has been developed consisting of a teflon disk firmly attached to an aluminum backing. The teflon is gently touched to the oil slick and then washed off with a solvent which is analyzed for hydrocarbons using gas chromatography and mass spectrometry.

Analysis

Citation Source: Citation Journal

C-016-74
[OIL POLLUTION IN THE IZU ISLANDS WATERS] Japanese with English summary.

Ohya, M., T. Otsuki, and M. Saito. 1973.
Journal of the Oceanographic Society of Japan. 29(3):121-129.

Using a larval net globules and lumps of oil were collected around the Izu Islands. The amount of oil was related to the activity and position of the Kuroshio Current.

Citation Source: Biological Abstracts. 1974. 58(3).
Entry #16978.

4. ANALYSIS

C-017-74
TAGGING OIL-RESIDUES IN TANKERS WITH MICROPARTICLES

Agnedal, P. O. 1973.
Proceedings of the Joint Conference for Prevention and Control of Oil Spills. p. 87-90. American Petroleum Institute, Washington, D. C.

Petroleum in tankers can be tagged with microparticles of different color, size, and/or density plastic and metal microparticles of different size and alloy. Positive identification of petroleum tanker spills were made during field tests.

Citation Source: Chemical Abstracts. 1974. 80(26).
Entry #147463p.

C-018-74
BASELINE CONCENTRATIONS OF LIGHT HYDROCARBONS IN GULF OF MEXICO

Brooks, J. M., A. D. Fredericks, W. M. Sackett, and J. W. Swinnerton. 1973.
Environmental Science and Technology. 7(7):639-642.

Baseline concentrations of light hydrocarbons were determined for 2,500 mi. of the Gulf of Mexico. Human activity sites were found to have the highest concentrations (port vicinities, offshore petroleum drilling and production sites, and deballasting tankers).

Citation Source: Oceanic Abstracts. 1974. 11(4).
Entry #74-03750.

C-019-74
SOURCES, SINKS, AND CONCENTRATIONS OF LIGHT HYDROCARBONS IN THE GULF OF MEXICO

Brooks, J. M. and W. M. Sackett. 1973.
Journal of Geophysical Research. 78(24):5248-5258.

Light hydrocarbons were monitored in gases stripped from seawater collected from the Gulf of Mexico. Concentrations of low molecular wt. hydrocarbons between the atmosphere and coastal gulf waters are not in equilibrium, except for methane. The methane is both given up and taken up by the coastal waters in different areas.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03476.

C-020-74
STABILITY OF CRUDE OIL-IN-WATER EMULSIONS

Chen, E. C. 1974.
Journal of Canadian Petroleum Technology. 13(1):38-41.

Six different types of crude oil were emulsified with water and a Coulter counter was used to measure droplet-size distribution. All six behaved similarly when measured against time for decrease in oil concentration and change in specific surface.

Citation Source: The Engineering Index Monthly. 1974. 12(7).
Entry #045603.

C-021-74
NATURAL HYDROCARBON SEEPAGE IN THE GULF OF MEXICO

Geyer, R. A. and W. M. Sweet, Jr. 1973.
Transactions, Gulf Coast Association of Geological Societies. 23:158-169.

Results of partial analyses were given for tar masses found along the coast.

Citation Source: Chemical Abstracts. 1974. 81(4).
Entry #15298z.

C-022-74
LABORATORY STUDIES OF THE ACCOMMODATION OF SOME CRUDE AND RESIDUAL FUEL OILS IN SEAWATER

Gordon, D. C., Jr., P. D. Keizer, and N. J. Prouse. 1973.
Journal of the Fisheries Research Board of Canada. 30(11): 1611-1618.

Under laboratory conditions the concentration of oil accommodated by seawater is directly related to the amount of oil and the degree of turbulence. Oil viscosity apparently governs the ratio of particulate (1-30μ) to subparticulate fractions in seawater.

Citation Source: Biological Abstracts. 1974. 58(1).
Entry #5174.

C-023-74
EXTRACTION OF DISPERSED OILS FROM WATER FOR QUANTITATIVE ANALYSIS BY INFRARED SPECTROPHOTOMETRY

Gruenfeld, M. 1973.
Environmental Science and Technology. 7(7):636-639.

Dispersed oil extraction from seawater for quantitative analysis by IR spectrophotometry is discussed. A technique that is safe and optimizes results is recommended.

Citation Source. Oceanic Abstracts. 1974. 11(4).
Entry #74-03749.

C-024-74
DETECTION OF TRACE AMOUNTS OF OIL IN SEAWATER BY FLUORESCENCE SPECTROSCOPY

Keizer, P. D. and D. C. Gordon, Jr. 1973.
Journal of the Fisheries Research Board of Canada. 30(8):1039-1046.

A method for determining petroleum residue concentrations in seawater using fluorescence spectroscopy is described.

Citation Source: Biological Abstracts. 1974. 58(1).
Entry #1379.

C-025-74
PETROLEUM-DERIVED HYDROCARBONS IN GULF OF MEXICO WATERS

Koons, C. B. and P. H. Monaghan. 1973.
Transactions, Gulf Coast Association of Geological Societies. 23:170-181.

Determinations were made of seepage tar organic compounds and hydro-carbons extracted from water.

Citation Source: Chemical Abstracts. 1974. 81(4).
Entry #15297y.

C-026-74
OIL POLLUTION SOURCE IDENTIFICATION

Lieberman, M. 1973.
U. S. Environmental Protection Agency. Office of Research and Monitoring. Environmental Protection Technology Series EPA-R2-73-102. February, 173 p.

By comparing certain stable chemical indexes present in unweathered suspect oil and in a weathered pollution sample, identification of oil pollution sources is possible. An analysis was made on weathered and unweathered oil by low voltage mass spectroscopy (polynuclear aromatics), high voltage mass spectroscopy (naphthenes), gas chromatography (n-paraffins), emission spectroscopy (Ni/V), and X-ray total S and Kjeldahl total N techniques.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03341.

C-027-74
MULTIPARAMETER OIL POLLUTION SOURCE IDENTIFICATION SYSTEM

Miller, J. W. 1973.
Proceedings Joint Conference for Prevention and Control of Oil Spills. p. 195-203. American Petroleum Institute, Washington, D. C.

Eighty crude oil samples, of the type transported over world oceans, were artificially aged by centrifuging and flash distilling to yield a 600°F residue. Then C and S isotopic compositions, S, N, V, and Ni contents, and normal paraffin odd-even C number predominance were measured on the residues in order to generate identification profiles with which to form a data library.

Citation Source: Chemical Abstracts. 1974. 80(26).
Entry #147464q.

C-028-74
MONTE CARLO SIMULATION OF OIL SLICK MOVEMENTS

Tayfun, M. A. and H. Wang. 1973.
American Society of Civil Engineers. Waterways, Harbors, and Coastal Engineering Division Journal. 99(WW3):309-324.

An oil spill is simulated by the movement of a large number of particles. The particle movements are influenced by deterministic water currents and random wind effects. From this technique estimates of probability distributions of oil spills can be made.

Citation Source: Oceanic Abstracts. 1974. 11(4).
Entry #74-03692.

C-029-74
DETERMINATION OF OIL CONCENTRATION AND SIZE DISTRIBUTION IN SHIP BALLAST WATERS: METHOD AND REPRESENTATIVE RESULTS

Witmer, F. E. and A. Gollan. 1973.
Environmental Science and Technology. 7(10):945-948.

Methods for determining quantity and droplet size distribution for oil in oily ballast water are described. Quantity is determined by light transmittance through an ultrasonically emulsified surfactant-stabilized sample. Oil droplet size distributions are determined with a microscopic photography cell.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03371.

C-030-74
HYDROCARBON AND CHLOROPHYLL: A CORRELATION IN THE UPWELLING REGION OFF WEST AFRICA

Zsolnay, A. 1973.
Deep-Sea Research Oceanographic Abstracts. 20(10):923-925.

Non-aromatic hydrocarbons and chlorophyll-a content of euphotic zone west African seawater were significantly correlated indicating that the hydrocarbons present were probably due to phytoplankton activity, not pollution.

Biological

Citation Source: Biological Abstracts. 1974. 58(3).
Entry #13191.

B. OIL POLLUTION CONTROL

1. CONTAINMENT

C-031-74
CLEANUP PLAN FOR OIL SPILLAGE

Anonymous. 1973.
Dock and Harbour Authority. 53(630):474-476

A plan for ship-caused oil spillage containment and treatment is described. Various containment techniques (dispersants, skimmer, hay, straw, peat, and oil booms) are discussed.

Cleanup

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03296.

C-032-74
THE TEST AND EVALUATION OF SKIMMERS, BOOMS, SORBENTS, AND PISTON FILMS FOR CLEANING UP NAVY OIL SPILLS

Bianchi, R. A., E. E. Johanson, and J. H. Farrell. 1973.
JBF Scientific Corporation, Burlington, MA Naval Facilities Engineering Command Contract No. N0002-72-C-0034. February, 73 p.

Oil spill cleanup tests were performed at Boston Naval Shipyard piers and Boston Harbor on dynamic inclined plane (DIP) skimmers, booms, piston films, and sorbents. An assessment of this equipment used in combination with available surface current generating devices was made in order to establish Navy oil spill cleanup guidelines.

Cleanup

Citation Source: Citation Journal.

C-033-74
OIL SPILLS CONTROL MANUAL FOR FIRE DEPARTMENTS

Cross, R., A. Roberts, J. Cunningham, and B. Katz. 1973.
U. S. Environmental Protection Agency. Office of Research and Monitoring. Technology Series EPA-R2-73-117. February, 96 p.

This is a manual to assist communities in oil spill containment in the interim before the spiller or responsible federal agency initiates cleanup procedures. It includes use of existing fire department resources plus additional useful ancillary equipment. Oil spill laws and regulations are outlined as well as ecological effects of oil pollution.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03351.

C-034-74
MULTICOMPONENT EVALUATION TEST OF HARBOR OIL SPILL RECOVERY SYSTEM

Graham, D. J. 1973.
Technical Note N-1293 Naval Civil Engineering Laboratory, Port Hueneme, California. June, 20 p.

Oil spill containment booms, skimmers, and related equipment are systematically evaluated individually and in combination.

Cleanup

Citation Source: Citation Journal.

C-035-74
CLEANUP OF INLAND OIL SPILLS

Jerbo, A. 1973.
Vatten. 29(3):223-232.

A lake and river oil spill in Sweden are described. Treatment of inland oil spills and a proposal adopted for handling future inland spills are discussed.

Cleanup

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03385.

C-036-74
HELICOPTER TOW TESTS OF THE U. S. COAST GUARD'S AIR DELIVERY CONTAINER FOR OIL SPILL CONTAINMENT BARRIER

Kennedy, J. R. 1973.
Naval Coastal Systems Lab., Panama City, Florida. December.

Successful flight tow tests were conducted on an oil spill barrier with its air delivery packing container, using a Navy H-53 tow equipped helicopter.

Citation Source: Scientific and Technical Aerospace Reports. 1974. 12(13). Entry #N74-21669.

C-037-74

EVALUATION OF SURFACTANTS, SORBENTS, AND SINKING AGENTS AS EFFECTIVE OIL SPILL CLEANUP AGENTS

McKay, W. C. 1972.
U. S. Coast Guard. Office of Research and Development. Report USCG-734110.2. November, 45 p.

This is a summary of four reports which investigate monomolecular surface film control of oil on water, sorbent oil removal from water, oil sinking, and the sand/oil sink method for controlling major ocean oil spills.

Cleanup

Citation Source: Pollution Abstracts. 1974. 5(4). Entry #74-03310.

2. CLEANUP

C-038-74
CLEANING UP OIL SPILLS ISN'T SIMPLE

Anonymous. 1973.
Environmental Science & Technology. 7(5):398-400.

The lack of a good solution to the oil spill cleanup problem is discussed and some promising areas of development are briefly reviewed.

Citation Source: Environmental Health and Pollution Control. 1974. 5(7). Entry #2529.

C-039-74
ISOLATION OF A STRAIN OF YEAST THAT THRIVES IN COLD WEATHER

Anonymous. 1974.
Water Newsletter. 16(14):1.

T. Kaneda of the Alberta Research Council is working with a cold weather, soil inhabiting variety of yeast called Candida which can consume hydrocarbons in petroleum. He hopes to accelerate the process to the point where a light oil spill can be removed within a summer by the yeast.

Biological

Citation Source: Citation Journal.

C-040-74
LABORATORY AND FIELD TESTING OF SURFACE-FILM FORMING CHEMICALS FOR USE AS OIL COLLECTING AGENTS

Barger, W. R. 1973.
Proceedings Joint Conference on Prevention and Control of Oil Spills. p. 241-246. American Petroleum Institute.

Surfactants whose physical and surface-chemical properties appeared to be most useful for oil collecting were evaluated in multicomponent field tests of oil recovery equipment. Of these surfactants sorbitan monolaurate at 25° (65% in 2-ethybutanol) and a proprietary mixture at 2° were most effective.

Citation Source: Chemical Abstracts. 1974. 80(26).
Entry #148860c.

C-041-74
A PROTOTYPE HIGH SEAS OIL RECOVERY SYSTEM. PHASE 1. SYSTEM DEVELOPMENT. VOLUME 3

Beran, W. T., B. Bruch, and K. R. Maxwell. 1973.
U. S. Coast Guard. Office of Research and Development.
Report USCG-724103.06.3-Vol. 3.

Preliminary design and development results are presented for a high seas oil recovery system constructed of vertical disks that are partially submerged and rotate through oil-covered water. The recovered oil is then wiped off the disks. Included is a discussion of additional development requirements and unsolved problems.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03318.

C-042-74
A PROTOTYPE HIGH SEAS OIL RECOVERY SYSTEM. PHASE 1. SYSTEM DEVELOPMENT. VOLUME 2

Beran, W. T., B. Bruch, and K. R. Maxwell. 1973.
U. S. Coast Guard Office of Research and Development Report
USCG-724103.06.3-Vol. 2

Preliminary design and development results are presented for a high seas oil recovery system constructed of vertical disks that are partially submerged and rotate through oil-covered water. The picked-up oil is then wiped off the disks. Included is a projected full-scale system performance, testing and scaling analysis, and a review of subsystem performance.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03317.

C-043-74
A PROTOTYPE HIGH SEAS OIL RECOVERY SYSTEM. PHASE 1. SYSTEM DEVELOPMENT. VOLUME 1

Beran, W. T., B. Bruch, and K. R. Maxwell. 1973.
U. S. Coast Guard. Office of Research and Development. Report
USCG-724103.06.3. Vol. 1.

Preliminary design and development results are presented for a high seas oil recovery system constructed of vertical disks that are partially submerged and rotate through oil-covered water. The picked-up oil is then wiped off the disks. Included is a project summary and a discussion of requirements, constraints, and system design.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03316.

C-044-74
AN OIL RECOVERY SYSTEM UTILIZING POLYURETHANE FOAM--A FEASIBILITY STUDY

Cochran, R. A., J. P. Fraser, D. P. Hemphill, J. P. Oxenham, and P. R. Scott. 1973.
Environmental Protection Agency, Technology Series Report No. EPA 670/2-73-084, 199 p. October.

Polyurethane foam is used as a sorbent for oil spills. The foam is formed on site, blown over the spill, picked up, and the oil/water mixture removed by wringing.

Citation Source: Selected Water Resources Abstracts. 1974.
7(14). Entry #5G W74-07341.

C-045-74
MICROBIAL DEGRADATION OF PETROLEUM AT LOW TEMPERATURES

Cundell, A. M. and R. W. Traxler. 1973.
Marine Pollution Bulletin. 4(8):125-127.

Studies done on two bacteria (Arthrobacter and Pseudomonas) suggests that biodegradation of hydrocarbons by microorganisms is significant in certain environments.

Biological

Citation Source: Oceanic Abstracts. 1974. 11(4).
Entry #74-03730.

C-046-74
EVALUATION TEST OF A SMALL HARBOR OIL SPILL RETRIEVAL SYSTEM

Graham, D. J. and L. Somers. 1974
Harding Pollution Control Corp. and Pollution Abatement Association. Naval Facilities Engineering Command Contract No. N00024-73-C-0273. July, 32 p.

A two-man operation consisting of a floating, gravity separator, a weir-type SLURP skimmer, and a collapsible 300 gallon oil-collecting storage tank in a pickup truck was used to obtain performance data and develop acceptance test procedures for small oil spill retrieval systems.

Citation Source: Citation Journal.

C-047-74
CONTAINMENT AND RECOVERY DEVICES FOR OIL SPILL CLEANUP OPERATIONS

Lehr, W. E. 1974.
Journal of Petroleum Technology. 26:375-380.

Offshore oil spill cleanup requirements are discussed as well as the advantages and disadvantages of current oil containment and recovery concepts.

Citation Source: The Engineering Index Monthly. 1974. 12(7).
Entry #045604.

C-048-74
DEVELOPMENT OF A HIGH SEAS OIL RECOVERY SYSTEM. APPENDIX 1.

March, F. A., R. L. Beach, R. P. Bishop, T. N. Blockwick, and R. K. Sahgal. 1973.
Government Reports Announcements. 73(12):8.

A double weir oil recovery system for rapid recovery of high seas oil spills was tested in a model test development program. Included are detailed system descriptions and test results.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03334.

C-049-74
REMOVAL OF OIL SOILS FROM HARD SURFACES USING SURFACTANT SOLUTIONS

Umehara, K., T. Naruse, and Y. Kato. 1970.
Aichi-Ken Kogyo Shidosho Hokoku. 6:84-87.

Oil stain (machine and rapeseed) removal effectiveness was compared for different surfactants on different substrates (metal, soft glass, and plastic). All substrates were cleaned well using nonionic surfactants while glass and plastic were cleaned well with anionic and cationic surfactants.

Citation Source: Chemical Abstracts. 1974. 80(26).
Entry #148201p.

C. EFFECTS OF OIL POLLUTION

1. BIOLOGICAL

C-050-74
MICROORGANISMS AND CHEMICAL POLLUTION

Alexander, M. 1973.
Bioscience. 23(9):509-515.

The importance of microorganisms to pollution abatement is discussed.

Citation Source: Biological Abstracts. 1974. 58(1).
Entry #1588.

C-051-74
CAUTION URGED ON MORE OCEAN OIL DRILLING

Anonymous. 1974.
Chemical & Engineering News. 52(28):23-24.

"Oil Spills and the Marine Environment," a report by the Ford Foundation's Energy Policy Project, Washington, D. C., is reviewed. The report authors urge that the U. S. concentrate on energy conservation until offshore drilling and oil spill cleanup technologies have advanced and that long-term research projects be initiated on the effects and fate of oil in the marine environment.

Design and Engineering

Citation Source: Citation Journal.

C-052-74
FATE AND EFFECTS OF POLLUTING PETROLEUM IN THE MARINE ENVIRONMENT

Atlas, R. M. and R. Bartha. 1973.
Residue Reviews: Residues of Pesticides and Other Contaminants in the Total Environment. 49:49-85.

The fate of the estimated 5 million metric tons of oil spilled into the marine environment yearly is discussed in terms of food chain effects and physical and biological degradation. Oil pollution control methods are also discussed.

Citation Source: Oceanic Abstracts. 1974. 11(4).
Entry #74-03757.

C-053-74

ICHTHYOTOXIC EFFECTS OF SOME ANTI-POLLUTION PRODUCTS

Baldini, I. 1974.
Water Research. 8(5):323-324.

Esso Corexit 8666 and 7664 and then Fina Sol OSR/2 and SC were found to be the more easily tolerated hydrocarbon dispersants by *Carassius auratus* (Goldfish).

Citation Source: The Engineering Index Monthly. 1974. 12(7). Entry #045570.

C-054-74

HYDROCARBONS IN THE PELAGIC *SARGASSUM* COMMUNITY

Burns, K. A. and J. M. Teal. 1973.
Deep-Sea Research and Oceanographic Abstracts. 20(2):207-211.

Upon analysis, pelagic Sargassum and associated macrofauna were found to contain petroleum hydrocarbon contamination. The hydrocarbon contamination level in animals was not recent-food-intake related or food-chain-position related and was higher than for *Sargassum*.

Citation Source: Pollution Abstracts. 1974. 5(4) Entry #74-03245.

C-055-74

PARAFFIN HYDROCARBON PATTERNS IN PETROLEUM POLLUTED MUSSELS

Clark, R. C., Jr. and J. S. Finley. 1973.
Marine Pollution Bulletin. 4(11):172-176.

Through the use of modern analytical techniques low levels of hydrocarbons can be detected in marine organisms.

Citation Source: Environmental Health and Pollution Control. 1974. 5(7). Entry #2393.

C-056-74

LAND-DERIVED POLLUTANT HYDROCARBONS

Cooper, B. S., R. C. Harris, and S. Thompson. 1974.
Marine Pollution Bulletin. 5(1):15-16.

Oil pollution in estuarine muds is believed to be from onshore sources. A correlation between mud oil-concentration and lipid oil-concentration of the sediment biomass is suggested.

Citation Source: Chemical Abstracts. 1974. 81(4).
Entry #16414w.

C-057-74
SOME EFFECTS OF KUWAIT CRUDE OIL ON THE LIMPET, PATELLA VULGATA

Dicks, B. 1973.
Environmental Pollution. 5(3):219-229.

The rocky shore-living limpet is used as a test species for oil toxicity. Crude oil toxicity is size independent and greatest during times of maximum circadian rhythm-related activity.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03366.

C-058-74
BEHAVIOR OF COMPONENTS FROM SPILLED OIL ON THEIR WAY THROUGH THE SOIL

Dietz, D. N. 1973.
Journal of Petroleum Technology. 25:1045-1046.

Using sand columns to simulate natural aquifers, anaerobic biodegradation of several oil components is being tested in an effort to determine if oil contaminated ground water will cleanse itself in twenty years.

Cleanup

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03909.

C-059-74
STABILITY AND FRAGILITY IN ARCTIC ECOSYSTEMS

Dunbar, M. J. 1973.
Arctic 26(3):179-185.

Ecological stability is defined as being of two types. The Arctic is generally classified as the "Type-2 stability" as Arctic seawater is subject to more serious damage from oil pollution than warmer waters.

Citation Source: Abstracts on Health Effects of Environmental
Pollutants. 1974. 3(7). Entry #6375.

C-060-74
SURPRISE FACTOR IN MARINE POLLUTION STUDIES

Goldberg, E. D. 1974.
Marine Technologist Society Journal. 8(2):29-34.

Contributions of pollution studies to the marine sciences are reviewed.

Citation Source: Chemical Abstracts. 1974. 81(4).
Entry #16535m.

C-061-74
MARINE POLLUTION AND THE PHARMACEUTICAL SCIENTIST

Halstead, B. W. 1973.
American Journal of Pharmaceutical Education. 37(2):267-275.

The marine environment is becoming increasingly important to the pharmaceutical scientists as a source of drugs. At the same time the marine environment is becoming increasingly polluted (petroleum and petroleum products are considered major pollutants) which is detrimental to marine organisms and destroys biodynamic materials that may be required to combat pollutant-related diseases.

Citation Source: Abstracts on Health Effects of Environmental Pollutants. 1974. 3(7). Entry #6861.

C-062-74
CRAWLING AND RESPIRATION AS INDICES OF SUBLETHAL EFFECTS OF OIL AND A DISPERSANT ON AN INTERTIDAL SNAIL LITTORINA LITTOREA

Hargrave, B. T. and C. P. Newcombe. 1973.
Journal of the Fisheries Research Board of Canada. 30(12 part 1):1789-1792.

Sublethal effects of pollutants may be measured by changes in behavioral traits of organisms. Bunker C oil increased crawling and respiration rates of a snail *L. littorea*. Low toxicity dispersant (Corexit 8666) or oil-seawater and Corexit decreases crawling and respiration rates.

Citation Source: Biological Abstracts. 1974. 58(4).
Entry #23018.

C-063-74
DANISH SEABIRD DISASTERS IN 1972

Joensen, A. H. 1973.
Marine Pollution Bulletin. 4(8):117-118.

Large numbers of seabirds in Danish waters were killed by small oil spills in 1972. The problem of large bird populations and heavy sea traffic is described. Existing and suggested remedies for the problem are discussed.

Citation Source: Oceanic Abstracts. 1974. 11(4).
Entry #74-03727.

C-064-74
THE EFFECTS OF WATER SOLUBLE FRACTION OF CRUDE OIL ON LARVAE OF THE DECAPOD CRUSTACEAN NEOPANOPE TEXANA (SAYI)

Katz, L. M. 1973.
Environmental Pollution. 5(3):199-204.

Artificial seawater polluted with a 10 ml/l concentration of crude oil used as a water extract caused high mortality in zoea upon exposure from the day of hatching. The molting process may also have been retarded due to the pollutant.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03364.

C-065-74
THE EFFECTS OF CRUDE OIL POLLUTION ON THE BEHAVIOR OF MARINE INVERTEBRATES

Kittredge, J. S. 1973.
Government Reports Announcements. 73(15):78.

The sensitive neuronal dendrites of the chemoreceptor organs of marine organisms are apparently destroyed by the water soluble component of crude oil.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03355.

C-066-74
[ASSIMILATION OF NORMAL ALKANES AND CRUDE OIL BY MARINE BACTERIA]
Russian with Russian and English summary.

Krasil'nikov, N. A., A. V. Tsyban', and T. V. Koronelli. 1973.
Okeanologiya. 13(5):877-882.

Bacteria living as neustron in the Black Sea were found to be able to assimilate and increase microbial biomass by actively consuming alkanes and crude oil. These bacteria are considered important to the process of oil biodegradation.

Citation Source: Biological Abstracts. 1974. 58(2).
Entry #7413.

C-067-74
A HYDROBIOLOGICAL SURVEY OF A SMALL SPANISH RIVER GROSSLY POLLUTED BY OIL REFINERY AND PETROCHEMICAL WORKS

Meynell, P. J. 1973.
Freshwater Biology. 3(6):503-520.

The physical, chemical, macrobiological, and toxicological effects of oil refinery wastes were examined on the Rio Ojailen in Spain. For 43 Km downstream from the refinery no macroinvertebrate life was found. Purification gradually takes place by dilution from tributaries and after retention in a man-made receiving lake.

Citation Source: Biological Abstracts. 1974. 58(2):
Entry #10851.

C-068-74
OIL-INDUCED MORTALITIES IN JUVENILE COHO AND SOCKEYE SALMON

Morrow, J. E. 1973.
Journal of Marine Research. 31(3):135-143.

When subjected to various concentrations of oil and different water temperatures young salmon exhibited a significantly higher level of mortality than the control group.

Citation Source: Oceanic Abstracts. 1974. 11(4).
Entry #74-03713.

C-069-74
N-PARAFFINS IN POLLUTED FISH BY CRUDE OIL FROM "JULIANA" WRECK

Motohiro, T. and N. Inoue. 1973.
Bulletin of the Faculty of Fisheries, Hokkaido University. 23(4):204-208.

Gas chromatography traces obtained from tissues of two of three species of fishes captured in the polluted water around the JULIANA wreck had peaks identical to those of C_{13}-C_{20} n-paraffins.

Citation Source: Biological Abstracts. 1974. 58(1).
Entry #5656.

C-070-74

PRELIMINARY REPORT ON THE ACUTE TOXICITY OF CANADIAN PETROLEUM REFINERY EFFLUENTS TO FISH

Pessah, E., J. S. Loch, and J. C. MacLeod. 1973.
Fisheries Research Board of Canada Technical Report 408.
p. 1-43.

Effluents from six Canadian refineries that employed a range of waste treatment practices were tested. Effluents from refineries practicing sound waste treatment were not acutely toxic to certain fishes.

Citation Source: Citation Journal.

C-071-74

BRINE SHRIMP BIOASSAY AND SEAWATER BOD [BIOCHEMICAL OXYGEN DEMAND] OF PETROCHEMICALS

Price, K. S., G. T. Waggy, and R. A. Conway. 1974.
Journal Water Pollution Control Federation. 46(1):63-77.

The biodegradability and seawater toxicity of >50 chemicals were tested, using brine shrimp (Artemia salina).

Citation Source: Chemical Abstracts. 1974. 80(26).
Entry #148869n.

C-072-74

TOXICITY STUDY OF TWO OIL SPILL REAGENTS TOWARD HUDSON RIVER FISH SPECIES

Rehwoldt, R., L. Lasko, C. Shaw, and E. Wirhowski. 1974.
Bulletin Environmental Contamination and Toxicology.
11(2):159-162.

Toxic levels of NO_2 and NO_4 heating oil to 6 species of Hudson River fish markedly increased when treated with a linear alkylsylfonate oil spill dispersant. Increased toxic effects were due to partial oil solubilization. A collecting agent (Herder, Shell Oil Co.) did not significantly increase the toxicity of the oil.

Citation Source: Chemical Abstracts. 1974. 81(1).
Entry #422m.

C-073-74

SILICA GEL MEDIUM FOR ENUMERATION OF PETROLEUMLYTIC MICROORGANISMS IN THE MARINE ENVIRONMENT

Seki, H. 1973.
Applied Microbiology. 26(3):318-320.

A medium made of silica gel was developed for the enumeration of marine microorganisms that decompose and utilize petroleum. Vertical distribution (0-1000 m deep) of petroleumlytic microorganisms was studied in the western North Pacific central water using silica gel medium.

Citation Source: Abstracts on Health Effects of Environmental Pollutants. 1974. 3(7). Entry #6169.

C-074-74

EFFECTS OF OIL DISPERSANTS AND OIL EMULSIONS ON MARINE ANIMALS

Swedmark, M., A. Granmo, and S. Kollberg. 1973.
Water Resources. 7(11):1649-1672.

The toxicities of nine oil dispersants, three oil emulsions with Corexit, and a dispersion of Oman crude oil were tested on two species of fish, three bivalves, and three crustaceans. Oil emulsions were the most toxic, and the organisms most sensitive were the fish and bivalves.

Citation source: Biological Abstracts. 1974. 58(2).
Entry #11358.

C-075-74

EFFECTS OF BUNKER C OIL ON INTERTIDAL AND LAGOONAL BIOTA IN CHEDABUCTO BAY, NOVA SCOTIA

Thomas, M. L. H. 1973.
Journal of the Fisheries Research Board of Canada. 30(1):83-90.

A large Bunker C oil spill was studied in Nova Scotia. Initial effects of the spill were a minor smothering of fauna and tearing loose of algae. Over a longer period two species of plants and a clam were killed either continuously or in the second year.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03411.

C-076-74
FATE OF PETROLEUM HYDROCARBONS IN BEACH SAND

U.S.N., Naval Biomedical Lab. 1973.
Government Reports Announcements. 73(11):87.

The fate of petroleum hydrocarbon (from bunker fuel) was studied at three sites: natural beaches, sand-containing lysimeters and in the laboratory. The elimination of bunker fuel was discussed and its effects on bacterial population structure were measured.

Cleanup

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03937.

C-077-74
[OBSERVATIONS ON SEALS (PHOCA VITULINA L.) ON HELGOLAND]
German with German, English, and French Summary.

Vauk, G. 1973
Zeitschrift für Jagdwissenschaft. 19(3):117-121.

Oil pollution is listed as the second largest cause of seal deaths at Helgoland and on the Schleswig-Holstein coast after deaths caused by endo- and ectoparasites.

Citation Source: Biological Abstracts. 1974. 58(1).
Entry #134.

C-078-74
MICROBIAL PETROLEUM DEGRADATION. ROLE OF CLADOSPORIUM RESINAE

Walker, J. D., L. Cofone, Jr., and J. J. Cooney. 1973.
Proceedings of the Joint Conference on Prevention and Control of Oil Spills. p. 821-5, American Petroleum Institute, Washington, D. C.

The fungus C. resinae was found to be able to grow on petroleum. High concentrations of pesticides did not reduce the hydrocarbon degradation rate.

Cleanup

Citation Source: Chemical Abstracts. 1974. 81(7).
Entry #35350p.

C-079-74
MERCURY RESISTANT BACTERIA AND PETROLEUM DEGRADATION

Walker, J. D. and R. R. Colwell. 1974.
Applied Microbiology. 27(1):285-287.

Oil extracted from water and sediment samples from Colgate Creek, Chesapeake Bay, Maryland contained high levels of mercury. Mercury-resistant bacteria in the samples degraded the oil perhaps to a significant degree.

Cleanup

Citation Source: Abstracts on Health Effects of Environmental Pollution. 1974. 3(7). Entry #6175.

C-080-74
MICROBIAL PETROLEUM DEGRADATION: USE OF MIXED HYDROCARBON SUBSTRATES

Walker, J. D. and R. R. Colwell. 1974.
Applied Microbiology. 27(6):1053-1060.

Microbial degradation potential is evaluated for microorganisms on a mixed hydrocarbon substrate (SAE 20 non-detergent motor oil) using gas-liquid chromatography. Other methods of estimating degree of microbial degradation of hydrocarbons are discussed.

Cleanup

Citation Source: Citation Journal

C-081-74
POLLUTION OF THE NORTH SEA

Weichart, G. 1973.
Ambio. 2(4):99-106

One of the most heavily polluted sea areas in the world is the North Sea. Dumping from ships and the exploitation of raw materials from the marine environment are listed among the most important sources of pollution.

Citation Source. Abstracts on Health Effects of Environmental Pollutants. 1974. 3(7). Entry #6267.

C-082-74

BIODEGRADABILITY AND CRUDE OIL COMPOSITION

Westlake, D. W. S., A. Jobson, R. Phillippe, and F. D. Cook. 1974.
Canadian Journal of Microbiology. 20(7):915-928.

The biodegradability at two temperatures (psychrophilic and mesophilic) was tested for four different crude oils having different compositions. Metabolic biodegradation capability of psychrophilic populations under mesophilic conditions was much greater than mesophilic populations under psychrophilic conditions. Oil composition was very important to biodegradation success.

Cleanup

Citation Source: Citation Journal

C-083-74

USING ARTEMIA TO ASSAY OIL DISPERSANT TOXICITIES

Zillioux, E. J., H. R. Foulk, J. C. Prager, and J. A. Cardin. 1973.
Journal of the Water Pollution Control Federation. 45(11): 2389-2396.

The use of brine shrimp (*Artemia salina*) nauplii as a bioassay species for oil dispersant toxicity tests is described. All conditions are standardized including the use of artificial seawater.

Citation Source: Environmental Health and Pollution Control. 1974. 5(7). Entry #2303.

2. PHYSICAL

C-084-74
THE ENVIRONMENTAL FATE OF STRANDED CRUDE OIL

Blumer, M., M. Ehrhardt, and J. H. Jones. 1973.
Deep-Sea Research and Oceanographic Abstracts. 20(3):239-259.

Two light paraffinic crude oils stranded on Martha's Vineyard and Bermuda were monitored for 13-1/2 and 16 months, respectively. The oil and its high boiling point constituents were far more persistent than anticipated and remained through the study period as modified crude oil.

Citation Source: Pollution Abstracts. 1974. 5(4)
Entry #74-03246.

C-085-74
OIL AND ICE IN THE ARCTIC OCEAN: POSSIBLE LARGE-SCALE INTERACTIONS

Campbell, W. J. and S. Martin. 1973.
Science. 181(4094):56-58.

Three mechanisms of natural oil dispersal are suggested following an Arctic oil spill: lead-matrix pumping, oil-hummock melting, and under ice transport. Due to ice pack mechanics and slow biodegradation the oil would eventually reach a large ice surface area where it would reduce the albedo.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03279.

C-086-74
SPREADING OF CRUDE OIL ON AN ICE SURFACE

Chen, E. C., J. C. K. Overall, and C. R. Phillips. 1974.
Canadian Journal of Chemical Engineering. 52(1):71-74.

Five different types of crude oil were poured on prepared ice surfaces. The behavior of the different crudes could be predicted by an equation if sufficient physical parameters were known.

Citation Source: The Engineering Index Monthly. 1974.
12(7). Entry #045605.

C-087-74
WATER POLLUTION - A PROBLEM WITH GLOBAL DIMENSIONS

Dybern, B. I. 1974
Ambio III(3-4):139-145.

World water pollution problems are described and generally divided into two types (A) caused by lack of development (developing countries) and (B) caused by development (industrialized countries). Major categories of water pollutants (including oil) are listed with their relative amount of harmfulness. International cooperativeness is considered essential to solving the water pollution problem, which should be viewed with other environmental and natural resource problems as a whole.

Citation Source: Citation Journal

C-088-74
PCB AND HYDROCARBON CONTAMINATION OF PLANKTON BY NETS

Harvey, G. R. and J. M. Teal. 1973.
Bulletin of Environmental Contamination and Toxicology. 9(5):287-290.

Nylon plankton nets are capable of absorbing PCB's and petroleum hydrocarbons from the water until the concentrations reach equilibrium with the water. Plankton are able to extract the hydrocarbons from the net. Since the net absorbs these substances throughout the water column, plankton analysis for PCB's or hydrocarbons can be affected.

Biological

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03244.

C-089-74
CHEMICAL POLLUTION OF GROUND WATERS

Kaufman, W. J.
Journal of the American Waterworks Association. 1974. 66(3): 152-159.

Petroleum is one of several ground water contaminants that are discussed. Methods of pollution prevention are suggested.

Citation Source: Chemical Abstracts. 1974. 81(4).
Entry #16534k.

D. OIL POLLUTION PREVENTION

1. DESIGN AND ENGINEERING

C-090-74
NEW BLOWOUT PREVENTION ACTUATOR IS DESIGNED FOR 10,000-FOOT WATERS

Anonymous. 1974.
World Oil. 178(6):101-102.

A subsea blowout prevention control system with hydraulic equipment commanded by two completely redundant multiplexed electronic communication channels has been ordered by a group of French oil companies. It is claimed to be capable of operating at depths of 10,000 feet.

Citation Source: The Engineering Index Monthly. 1974. 12(7).
Entry #042855.

C-091-74
DEPOLLUTION TECHNIQUES AND MANAGEMENT IN AN OIL REFINERY

Chakravarty, S. and H. K. Mulchandani. 1973.
Chemical Age in India. 24(12):819-826.

A review is given for an oil refinery's operations.

Citation Source: Chemical Abstracts. 1974. 81(4).
Entry #15284s.

C-092-74
OVER 370 TPD OF OILY SLUDGE CONVERTED INTO CLEAN AIR AND INNOCUOUS LANDFILL

Flood, G. C. and K. L. Kuncl. 1973.
Chemical Processing. Chicago 36(9):8-9.

Refinery wastes from Amoco Oil Company's Whiting, Indiana refinery are incinerated in a large smokeless fluid bed incinerator. The resultant ash consists mainly of sodium carbonate and sodium sulfate. Stack gas analysis is given.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03568.

C-093-74
POLLUTION CONTROL IN A NEW PETROCHEMICAL COMPLEX

Ford, D. L., G. C. Patterson, and J. M. Eller. 1973.
Environmental Science & Technology. 7(10):906-910.

The El Tablazo Project in Venezuela is one of the world's largest industrial complexes. Located adjacent to an ecologically sensitive body of water, the complex will collect and treat its effluents biologically. The cost of collection and treatment of its effluents is projected to be relatively small in relation to the overall complex costs.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03368.

2. OIL RECOVERY AND HANDLING TECHNIQUES

C-094-74
COALESCENT PLATES REMOVE OIL FROM WASTEWATER

Anonymous. 1973.
American City. 88(6):88.

Existing oil-water separation systems are significantly upgraded by the addition of several coalescent plates, which reduce the size by 40% over previous system installations.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03282.

C-095-74
MAINTENANCE CONTRIBUTES TO ENVIRONMENTAL PROTECTION

Anonymous. 1974.
Oil & Gas Journal. 72(30):170-178.

At the 1974 NPRA Refinery and Petrochemical Plant Maintenance Conference in Houston a panel of petroleum and petrochemical industry representatives conducted a question-answer session on refinery environmental safeguards. Areas covered were waste-water and waste-solid disposal and noise suppression.

Citation Source: Citation Journal.

C-096-74
CLARIFYING OILFIELD AND REFINERY WASTEWATERS BY GAS FLOTATION

Ellis, M. M. and P. W. Fischer. 1973.
Journal of Petroleum Technology. 25:426-430.

Gas flotation is considered as a method for handling large problems of water containing oily residues and suspended solids. The principle of gas flotation and various designs and methods of gas flotation are discussed.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03398.

C-097-74
ULTRAFILTRATION CONCEPT FOR SEPARATING OIL FROM WATER

Goldsmith, R. L. and S. Nossain. 1973.
U. S. Coast Guard. Office of Research and Development. Report USCG-734305 2/2. January, 137 p.

Investigations of membrane ultrafiltration were made in order to develop a method to purify oily shipboard waste.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03311.

C-098-74

SIMULATION OF A PETROLEUM REFINERY WASTE TREATMENT PROCESS

Hoffman, T. W., D. R. Woods, K. L. Murphy, and J. D. Norman. 1973.
Journal of the Water Pollution Control Federation. 45(11): 2321-2334.

A detailed description of the strategy and results of a computer simulated steady state operation is given for the wastewater treatment process at the BP refinery, Trafalger, Ontario, Canada.

Citation Source: Biological Abstracts. 1974. 58(1).
Entry #5229.

C-099-74

ELECTROCHEMICAL FLOTATION CONCEPT FOR REMOVING OIL FROM WATER

McKenna, Q. H., H. H. Helber, L. M. Carrell, and R. F. Tobias. 1973.
U. S. Coast Guard. Final Report USCG-734305 2/4. January, 131 p.

A feasibility study using electronically produced micro-gas bubbles to separate oil from bilge water was conducted. Pretreatment of bilge water consisted of adjusting the pH to 10 with sodium hydroxide along with the addition of 10-15 ppm of anionic polyelectrolyte. Costs were calculated for 30, 100, and 1,000 gpm capacity systems based on pilot plant data.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03343.

C-100-74

COALESCING PLATES AND PACKS FOR OIL WATER SEPARATION IN VARIOUS SHIPBOARD APPLICATIONS

Merryman, J. G. and E. R. Osterstock. 1973.
U. S. Coast Guard. Office of Research and Development Report USCG-724305 2/6. January, 189 p.

Shipboard oil-water separator application of coalescing plates and packs was determined by varying plate length, plate angle, flow rate oil concentration, oil types, emulsification, and motion. Particle sizes and particle distributions were plotted for mixer setting and the centrifugal pump.

Design and Engineering

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03312.

C-101-74

STUDY OF HYDROPHILIC MEMBRANES FOR OIL-WATER SEPARATION

Milstead, C. E. and J. F. Loos. 1972.
U. S. Coast Guard Office of Research and Development Report
USCG-4305 2/7. November, 89 p.

Tests of twenty-membranes for oil rejection capabilities and product water flux were made in order to develop a practical shipboard oil-water separator. A surface-hydrolyzed cellulose acetate membrane was determined to be most promising because of its nearly complete oil rejection. Further tests on this membrane of the effects of input feed temperature, flow rate, salt concentrations, applied pressure, and type and concentration of oil contaminants were made as well as cleaning of oil-fouled membranes. A shipboard 100 GPM oil-water separator system was evaluated.

Design and Engineering

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03314.

C-102-74

BAILEY OIL CONTENT MONITOR

Moreau, J. O. and J. J. Heigl. 1973.
U. S. Maritime Administration. Final Report MA-RD-900-73041.
April, 92 p.

An evaluation is made of the Bailey detector for the continuous quantitative measurement of crude oil in ballast water being pumped overboard. The accuracy of the system is discussed with suggested improvements.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03358.

C-103-74
DEEP-TANK EXTENDED AERATION OF REFINERY WASTES

Rose, W. L. and R. E. Gorringe. 1974.
Journal of the Water Pollution Control Federation. 46(2):
393-403.

Two 24-ft water depth aeration tanks equipped with sparger air diffusion gear are sued at the East Chicago, Atlantic Richfield Co. refinery to treat refinery effluent water.

Citation Source: Biological Abstracts. 1974. 58(3).
Entry #17018.

C-104-74
VORTEX CONCEPT FOR SEPARATING OIL FROM WATER

Stoeffler, R. L. and C. E. Jones. 1973.
U. S. Coast Guard. Office of Research and Development Report
USCG-4105 2/1. January, 109 p.

Applications of a refined vortex separator to shipboard oil-water separation and oil spill cleanup are described.

Cleanup

Citation Source: Pollution Abstracts. 1974. 5(4)
Entry #74-03313.

C-105-74
DATA IMPROVE SEPARATOR DESIGN

Thomson, S. J. 1973.
Hydrocarbon Processing. 52(10):81-83.

A method to predict separator performance is being developed and is based upon the parameter of surface area/unit flow.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03471.

C-106-74
TREATMENT OF OILY WASTES FROM A STEEL MILL

Woods, D. R. and M. W. Slezak. 1973.
Journal of the Water Pollution Control Federation. 45(10):
2136-2145, 2239.

Two methods of treating oily waste water are described; a solvent extraction process and a coagulation process.

Citation Source: Abstracts on Health Effects of Environmental Pollutants. 1974. 3(7). Entry #6286.

3. RESEARCH

C-107-74
CARGO SPILL PROBABILITY ANALYSIS FOR THE DEEP WATER PORT PROJECT

Nair, K., H. C. Shah, W. S. Smith, and D. S. Shah. 1973.
Government Reports Announcements. 73(10):122-123.

A probability model is constructed to determine the probability of liquid cargo spills from tankers or tanker-related facilities. The model is quantified with a Bayesian statistical approach; and size, cause, and location of liquid cargo spills are considered.

Pollution Abstracts. 1974. 5(4). Entry #74-03315.

E. EFFECTS OF OIL PROSPECTING AND PRODUCTION

C-108-74
TO DRILL OR NOT TO DRILL

Anonymous. 1974
Bioscience. 24(7):393-395

This article is a review of the Council on Environmental Quality (CEQ) Report "OCS Oil and Gas--An Environmental Assessment." It summarizes the CEQ report's assessment of potential environmental risks of drilling along the Atlantic coast and the Gulf of Alaska. The significance of baseline studies and basic research is emphasized in the CEQ's report.

Citation Source: Citation Journal.

C-109-74
OIL AND THE ENVIRONMENT: THE PROSPECT

Anonymous. 1973.
Shell Oil Company, Public Affairs. May, 32 p.

The environmental pollution problem associated with transporting oil and producing energy are discussed and potential solutions are offered.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03947.

C-110-74
OIL AND TROUBLE IN THE LOUISIANA WETLANDS

Futrell, W. 1974.
Sierra Club Bulletin 59(7):14-16.

Conservationists feel that the Louisiana gulf coast environment is being stressed to the limit by oil operations. Two important stress factors cited are the construction of onshore oil support facilities and the cumulative effect of numerous small oil spills. The federal regulatory agencies are charged first with neglect and finally with protecting rather than regulating the oil industry.

Citation Source: Citation Journal.

F. OIL POLLUTION LEGISLATION

1. STATE

C-111-74
POLLUTANT SPILL PREVENTION CONTROL ACT ENACTED

Anonymous. 1974.
Clean Air and Water News. 6(31):454.

The Florida state senate approved Bill No. 132, June 27, 1974, effective July 1, 1974. Discharge of pollutants is prohibited on or in any coastal waters or lands and terminal operators must be certified to have proper pollution prevention and correction equipment and be financially responsible pursuant to federal laws and regulations.

Citation Source: Citation Journal.

2. NATIONAL

C-112-74
U. S. CHECKING UP ON FIRMS' SPILL-PREVENTION, CLEANUP PLANS

Anonymous. 1974.
Oil & Gas Journal. 72(30):117

Spot checks are being made by the Government to see that potenial oil spillers have a prevention and cleanup plan.

Cleanup

Citation Source: Citation Journal.

C-113-74
COAST GUARD PROPOSES CHANGES TO TANK VESSEL REGS.

Anonymous. 1974.
Clean Air and Water News. 6(29):430.

The Coast Guard has proposed regulations regarding the design and operations of tank vessels engaged in domestic trade. The rules concern protection of the marine environment. The new regulations amend existing pollution regulations and are detailed in the Federal Register, June 28, 1974 (39 F. R. 24150).

Design and Engineering

Citation Source: Citation Journal.

C-114-74
OVER $8 MILLION IN POLLUTION FINES HAVE BEEN ASSESSED BY EPA

Anonymous. 1974.
Clean Air and Water News. 6(32):463-464.

Since its formation in 1970 EPA has initiated action in 567 cases of violation of water pollution control laws. Of these 567 actions, 440 were oil spill cases. After acceptance of aerial and NASA space photos as valid documentary evidence testimony by an Illinois court, EPA began intensive work developing a remote sensing program to detect pollution.

Remote Sensing

Citation Source: Citation Journal.

C-115-74
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM: GUIDELINES FOR ACQUISITION OF INFORMATION FROM OWNERS OF POINT SOURCES

Environmental Protection Agency. 1973.
Federal Register. 38(141):19893-19896.

Parts 124 and 125 of Title 40, Code of Federal Regulations, is amended. The short and standard forms required to be submitted by owners and operators of point sources are reused and applicability of the regulations clarified.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03460.

C-116-74
OIL POLLUTION PREVENTION: NON-TRANSPORTATION-RELATED ONSHORE AND OFFSHORE FACILITIES; PROPOSED RULEMAKING

Environmental Protection Agency. 1973.
Federal Register. 38(138):19333-19339.

Part 112 is proposed as an addition to Title 40 Code of Federal Regulations, Chapter 1, Subchapter D. Potential oil spillers would be required to submit spill prevention countermeasure plans subject to three year review and evaluation. Failure to comply would result in civil penalties.

Pollution Abstracts. 1974. 5(4). Entry #74-03459.

C-117-74
ALL BOAT OIL DISCHARGES WILL RESULT IN CIVIL PENALTY: CG

Foss, W. O. 1974.
National Fisherman. 55(5)25A.

The Federal Water Pollution Control Act, effective 1 July, 1974, and enforced by the U. S. Coast Guard is discussed.

Citation Source: Citation Journal.

C-118-74
U. S. COAST GUARD OIL POLLUTION INVESTIGATION AND CONTROL SCHOOL: INVESTIGATOR'S MANUAL

United States Coast Guard, Reserve Training Center. 1973.
Government Reports Announcements. 73(11):86.

A manual for oil pollution investigators that includes pertinent laws, the Miranda case, procedures for investigative reporting with samples and a tanker/terminal oil transfer operation is outlined.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03328.

C-119-74
U. S. COAST GUARD OIL POLLUTION INVESTIGATION AND CONTROL SCHOOL: ON-SCENE COORDINATOR'S MANUAL

U. S. Coast Guard Reserve Training Center. 1973.
Government Reports Announcements. 73(11):86.

A manual for an on-scene coordinator at the site of an oil or hazardous materials spill is discussed. Presented are national, regional and local contingency plans, coordinator guidelines, and an oil spill case study.

Citation Source: Pollution Abstracts. 1974. 5(4).
Entry #74-03329.

3. INTERNATIONAL

C-120-74
THE NEW TREATY ON VESSEL POLLUTION

McManus, R. J. 1974.
Oceans. 7(4):59-65.

The 1973 Conference on Marine Pollution is described and prior pollution treaties discussed. The 1973 conference treaty and technical annexes are analysed.

Citation Source: Citation Journal.

4. FOREIGN

C-121-74
PETROLEUM REFINERY EFFLUENT REGULATIONS AND GUIDELINES

Environment Canada. 1974.
Environment Canada Environmental Protection Service Regulations, Codes, and Protocols Report EPS 1-WP-74-1. January, 29 p.

Liquid effluent regulations specifically including oil and grease were annexed to the Canadian fisheries act as of November, 1973. Liquid effluent acute toxicity guidelines were simultaneously issued by the Department of the Environment.

Citation Source: Selected Water Resources Abstracts. 1974.
7(14) Entry #5G W74-07274.

SECTION III. CURRENT RESEARCH PROJECTS

A. OIL POLLUTION DETECTION AND EVALUATION

1. MONITORING

R-001-74
ARCTIC OIL POLLUTION CONTROL PROGRAM OIL DISSIPATION RESEARCH

Principal Investigator: Hoult, D. P.
Specialty: Mechanical Engineering
Performing Organization: Massachusetts Institute of Technology, School of Engineering, Cambridge, Massachusetts
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: Unknown

Spreading of a large oil spill in an ice field will be predicted and a model will be developed of how oil ages when it is trapped under ice.

SSIE No.: GZF-47

R-002-74
CHARACTERIZATION OF INFRARED SPECTRA OF HEAVY PETROLEUM PRODUCTS VIA STATISTICAL ANALYSIS

Principal Investigator: Kawahara, F. K.
Performing Organization: U. S. Environmental Protection Agency, National Environmental Research Center, Cincinnati, Ohio
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #H16AJA04, 72P18089
Period: 7/73 to 6/74 Funds: Unknown

Methods are being developed to characterize petroleum products using infrared absorbance measurements and mathematical procedures. With these techniques the source of spills may be identified.

SSIE No. AO-18089-1

R-003-74
OIL CONTAINMENT METER

Principal Investigator: Pragger, M., and H. J. Cooley
Performing Organization: Nucor Corporation, Denville, New Jersey
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #68-03-0205
Period: 7/72 to 6/73 Funds: $87,000

An oil contamination meter is being developed which continuously measures and records the concentration of oil in treated water discharged from oil-contaminated waters.

SSIE No.: GMA-1635

R-004-74
DEVELOPMENT OF A PIEZOELECTRIC OIL ON WATER DETECTOR

Principal Investigator: Unknown
Performing Organization: Esso Research & Engineering Co., Linden, New Jersey
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: $83,746

The contract provides for the construction of a ruggedized oil-on-water monitor which can be positioned into an Aid to Navigation Buoy.

SSIE No.: GZF-23-1

R-005-74
EVALUATION OF AN INFRARED OIL FILM MONITOR

Principal Investigator: Unknown
Performing Organization: Wright & Wright Environmental Engineering, Newton Center, Massachusetts
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $45,687

An infrared oil film monitor is being evaluated, in a five-phase project, for use in a local area pollution surveillance system.

SSIE No.: GZ-38339

R-006-74
IN-SITU DETECTION OF OIL SLICKS UTILIZING DIFFERENTIAL EVAPORATION

Principal Investigator: Unknown
Performing Organization: Environmental Research Institute, Michigan. Ann Arbor, Michigan
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

No summary provided

SSIE No.: GZF-78

R-007-74
OIL SPILL DETECTION

Principal Investigator: Unknown
Performing Organization: U. S. Environmental Protection Agency, Arlington, Virginia
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: $40,946

A joint EPA/CG project is evaluating an ultraviolet fluorescence technique for detecting, measuring, and identifying oil spills.

SSIE No.: GZ-38169-1

R-008-74
SHIPBOARD WASTEWATER OIL DETECTOR

Principal Investigator: Unknown
Performing Organization: General Electric Company, Philadelphia, Pennsylvania
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The project proposes various laboratory development and testing programs for the production of a shipboard wastewater oil detector.

SSIE No.:GZ-38987-1

R-009-74
NAVY ENVIRONMENT--FATE OF OIL AFTER A MAJOR OIL SPILL

Principal Investigator: Vedros, N. A.
Specialty: Public Health
Performing Organization: University of California, School of Public Health, Berkeley, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The fate of oil in California beach sand is being investigated.

Analysis

SSIE No.: GZF-62

2. REMOTE SENSING

R-010-74
OIL SPILL SURVEILLANCE SYSTEM

Principal Investigator: Eldering, H. G.
Performing Organization: Baird Atomic Incorporated, Bedford, Massachusetts
Supporting Agency: U. S. Environmental Protection Agency, Office of Research & Development. #68-01-0146
Period: 7/73 to 6/74 Funds: Unknown

The project proposes to develop a prototype fluorescence oil spill surveillance instrument based on fluorescence excitation/emission signatures and emission efficienty data from model oils.

SSIE No.: GMA-1630-1

R-011-74
TEST AND A/C INSTALLATION

Principal Investigator: Ingrao, H. C.
Performing Organization: U. S. Department of Transportation, Transportation Systems Center, Cambridge, Massachusetts
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $183,000

A flyable oil spill surveillance system operating in the oil fluorescence range (350 to 700 nanometers) is being developed and field tested. Field test data will be used to determine differences and changes in the oil fluorescence spectra.

SSIE No.: GZ-38171

R-012-74
AIRBORNE OIL SURVEILLANCE SYSTEM/AOSS

Principal Investigator: Unknown
Performing Organizatin: Aerojet General Corporation, El Monte, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: $370,367

"The detailed design, fabrication, installation, and flight test evaluation of a prototype airborne oil surveillance system."

SSIE No.: GZF-20-1

R-013-74
ANALYSIS OF DATA FROM THE EARTH RESOURCES AND TECHNOLOGY SATELLITE

Principal Investigator: Unknown
Performing Organization: University of Michigan, Graduate School, Ann Arbor, Michigan
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The usefulness of space acquired remote sensor data in contributing to oil pollution detection and monitoring will be investigated.

SSIE No.: GZF-30

R-014-74
OIL SLICK SURVEILLANCE AND FORECASTING, SLICK THICKNESS MEASURING DEVICE

Principal Investigator: Unknown
Performing Organization: U. S. Department of Transportation, Coast Guard, Washington, D. C.
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: Unknown

The project proposes to design a remote sensor which measures the thickness of oil slicks.

SSIE No.: GZ-12138

R-015-74
PROTOTYPE AIRBORNE OIL SURVEILLANCE SYSTEMS

Principal Investigator: Unknown
Performing Organization: U. S. Navy, Air Development Center, Warminster, Pennsylvania
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

No summary provided SSIE

SSIE No.: GZF-41

R-016-74
REMOTE SENSING OF THE ENVIRONMENT

Principal Investigator: Unknown
Performing Organization: University of Michigan, Graduate School, Ann Arbor, Michigan
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

Data will be collected in order to aid in the study of remote sensing techniques used to detect oil slicks underwater.

SSIE No.: GZF-29

3. SAMPLING

R-017-74

DEVELOPMENT OF A SURFACE FILM OIL SAMPLER CAPABLE OF CONTINUOUS IN-SITU SAMPLING

Principal Investigator: Unknown
Performing Organization: Curtis Levantine & Associates, Tarzana, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The two-phase project proposes to conduct preliminary analyses and continued research on the design and construction of a surface film oil sampler.

Analysis

SSIE No.: GZ-38992-1

4. ANALYSIS

R-018-74
FEASIBILITY STUDY OF A RESEARCH PROGRAM ON THE SOURCE, DEGRADATIVE REMOVAL, AND SECONDARY CONSEQUENCES OF PETROLEUM PRODUCTS IN LAKE WATER

Principal Investigator: Andersen, K. K.
Performing Organization: University of New Hampshire, Water Resources Research Center, Durham, New Hampshire
Supporting Agency: U. S. Department of the Interior, Office of Water Resources Research #A-033-NH
Period: 7/73 to 6/74 Funds: $1,200

In order to obtain information about waste products from lubricants and water craft engines as a source of water pollution in lakes, several samples of New Hampshire lake waters are being analyzed to determine amounts and kinds of hydrocarbons present.

SSIE No.: GUW-3497-1

R-019-74
POLLUTION RESPONSE/EFFECTS OF WAVES ON OIL SPILL MOVEMENTS

Principal Investigator: Bezoni, R. H.
Performing Organization: University of Missouri, Graduate School, Columbia, Missouri
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: Unknown

The combined effect of waves and wind on movement of an oil lens is being studied.

SSIE No.: GZF-25

R-020-74
NAVY ENVIRONMENT--ORGANIC CHEMISTRY OF THE OCEANS AND DETECTION OF HYDROCARBON POLLUTION

Principal Investigator: Blumer, M.
Performing Organization: Woods Hole Oceanographic Institution, Woods Hole, Massachusetts
Supporting Agency: U. S. Department of Defense, Navy. DN 723504 #N00014-66-C-0241
Period: 7/72 to 6/73 Funds: $56,000

The sources, concentrations, variability, and fate of organic compounds in the sea will be examined. Also included will be those organic compounds cycled between various types of marine organisms.

Biological Effects

SSIE No.: GQN-723504-2

R-021-74
MOVEMENT OF SPILLED OR LEAKING OIL IN SOIL

Principal Investigator: Dracos, T.
Performing Organization: Eidgenossische Tech, Hoch, Zurich, Switzerland
Supporting Agency: None reported
Period: 7/72 - 6/73 Funds: $5,263

Laboratory studies are being conducted on the movement of oil, including gasoline, through non-cohesive soil. The source would be spilled or leaking from tanks and pipelines.

SSIE No.: GB-62137

R-022-74
ATMOSPHERIC POLLUTANT TRANSPORT AND DEPOSITION ON THE SEA SURFACE

Principal Investigator: Duce, R. A.
Specialty: Oceanography
Performing Organization: University of Rhode Island, School of Oceanography, Kingston, Rhode Island
Supporting Agency: U. S. National Science Foundation, Division of National and International Progress, GX-33777 A2
Period: 2/74 to 1/75 Funds: $11,600

Atmospheric and seawater samples will be analyzed for heavy metals, petroleum hydrocarbons, and chlorinated hydrocarbons. Samples will be obtained from or near Bermuda, Block Island Sound, and Kingston, Rhode Island.

SSIE No.: GSN-949-2

R-023-74
NAVY ENVIRONMENT--THE PROPERTIES OF WATER IN CAPILLARY SYSTEMS

Principal Investigator: Frommer, M.
Performing Organization: Hydronautics Incorporated, Laurel, Maryland

Supporting Agency: U. S. Department of Defense, Navy. DN 923439 N00014-70-C-0018
Period: 7/72 to 6/73 Funds: $40,495

Studies will be conducted to provide information leading to the understanding of the properties of water at interfaces and in finely divided form. Membranes of graded porosities and of various hydrophilic natures will be wetted and the physical properties measured.

SSIE No.: GQN-923439-3

R-024-74
SHIP OPERATION SUPPORT

Principal Investigator: Geyer, R. A.
Specialty: Oceanography
Performing Organization: Texas A&M University System, School of Geosciences, College Station, Texas
Supporting Agency: U. S. National Science Foundation, Division of National and International Progress, #GD-31790
Period: 12/73 to 11/74 Funds: $125,000

Operating support is being provided by the R/V GYRE to conduct projects investigating the fate, spacial and temporal distribution of petroleum-derived organic compounds.

SSIE No.: GSN-1375

R-025-74
INPUT AND LOSS OF PETROLEUM AND CHLORINATED HYDROCARBONS TO THE DEEP NORTH ATLANTIC OCEAN

Principal Investigator: Harvey, G. R.
Performing Organization: Woods Hole Oceanographic Institute, Woods Hole, Massachusetts
Supporting Agency: U. S. National Science Foundation, Division of National and International Progress, #GX-35212A1
Period: 7/73 to 6/74 Funds: $70,150

In a study of the transport of petroleum and chlorinated hydrocarbons to the sea two problems will be investigated: the transport of continental pollutants to the sea via shelf processes and the transfer of pollutants to the deep sea by sinking particles.

SSIE No.: GSN-1008-1

R-026-74

THE FEASIBILITY OF IDENTIFYING MYSTERY OIL SPILLS

Principal Investigator: Hunt, G. S.
Performing Organization: State Department of Environmental Protection, Augusta, Maine
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #801006
Period: 7/72 to 6/73 Funds: $39,303

A feasibility study is being conducted to determine whether oil spilled in coastal and inland waters can be identified. Samples of the spill will be compared chemically and physically with oil samples taken from ships (oil from ships sampled in accordance with the State of Maine's Oil Conveyance Law).

SSIE No.: GMA-1646

R-027-74

ANALYSES OF ASPHALTS BY ELECTRON CAPTURE DETECTOR GAS CHROMATOGRAPHY

Principal Investigator: Kawahara, F. K.
Performing Organization: U. S. Environmental Protection Agency, National Environmental Research Center, Cincinnati, Ohio
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #16AJA03, 72P18088
Period: 7/73 to 6/74 Funds: Unknown

Asphalts are being fingerprinted by analysis of their minor components using gas chromatographic methods (with electron capture detector).

SSIE No.: AO-18088-1

R-028-74

EXAMINATION OF CHEMICAL AND PHYSICAL PROPERTIES OF ALL TYPES AND SOURCES OF OILS AND PRODUCTS BY VARIOUS TYPES OF INSTRUMENTATION

Principal Investigator: Kawahara, F. K.
Performing Organization: U. S. Environmental Protection Agency, National Environmental Research Center, Cincinnati, Ohio

Supporting Agency: *U. S. Environmental Protection Agency,*
Office of Research and Development
Period: 7/73 to 6/74 Funds: Unknown

All types of oils and oil products will be examined by various instrumental methods to determine chemical and physical properties for useful oil identification techniques and methods.

SSIE No.: AO-18091-1

R-029-74
FINGERPRINTING OF OIL SPILLED IN THE MARINE ENVIRONMENT

Principal Investigator: Kolpack, R. L.
Performing Organization: University of Southern California, Graduate School, Los Angeles, California
Supporting Agency: U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Sea Grant Office
Period: 7/72 to 6/73 Funds: $15,000

A study was conducted to identify and classify tar samples collected along the beaches of the Santa Barbara Channel based on the chemical composition of the oil. Chemical differences between fresh seep oil and fresh crude oil were revealed.

SSIE No.: GBP-1403

R-030-74
MARINE GEOLOGY

Principal Investigator: Kolpack, R. L.
Performing Organization: University of Southern California, Graduate School, Los Angeles, California
Supporting Agency: U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Sea Grant Office #2-35227
Period: 11/72 to 10/73 Funds: Unknown

Distribution of hydrocarbons around natural seeps in the Santa Barbara Channel is being studied in an effort to evaluate methods of hydrocarbon dispersal and accumulation.

Cleanup

SSIE No.: GBP-931

R-031-74

HYDRODYNAMICS AND ELECTROSTATIC CHARGING WITH APPLICATION OF WATER PURIFICATION AND OIL FILTRATION

Principal Investigator: Sonin, A. A. and R. F. Probstein
Specialty: Mechanical Engineering
Performing Organization: Massachusetts Institute of Technology School of Engineering, Cambridge, Massachusetts
Supporting Agency: U. S. National Science Foundation, Division of Engineering, #GK-35798X1
Period: 8/73 to 7/74 Funds: $73,300

The hydrodynamic-electrostatic interaction model will be used as a basis for a theoretical and experimental investigation of water purification and related processes.

Oil Recovery

SSIE No.: GSE-3932-1

R-032-74

HIGH SEAS, EPA POOL, AND SPILL OF OPPORTUNITY TESTING

Principal Investigator: Unknown
Performing Organization: Lockheed Missiles & Space Company, Sunnyvale, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: $98,400

"High seas testing, preparation of special test equipment, test operations and final report."

SSIE No.: GZ-45388

R-033-74

MARINE ENVIRONMENT PETROLEUM SENSORS

Principal Investigator: Unknown
Performing Organization: Stanford Research Institute, Menlo Park, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The project is investigating the possibility of identifying the source and age of petroleum in the sea.

SSIE No. GZF-32

R-034-74
STUDY OF THE CHEMICAL AND PHYSICAL CHARACTERIZATION OF TAR SAMPLES FOUND IN THE MARINE ENVIRONMENT

Principal Investigator: Unknown
Performing Organization: Shell Oil Company, Houston, Texas
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

Tar will be sampled and tested for physical and mineralogical properties. The organic constituents of the tar will be analyzed and then the samples will be compared using data processing methods.

SSIE No.: GZ-38163-1

R-035-74
WEATHERING OF OIL AT SEA

Principal Investigator: Unknown
Performing Organization: Esso Research & Engineering Co., Linden, New Jersey
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The fate of oil during weathering and the magnitude of the effects of the weathering variables on oil in the marine environment are being investigated.

SSIE NO.: GZF-42

R-036-74
OIL POLLUTION RESEARCH

Principal Investigator: Wasik, S. P.
Performing Organization: U. S. Department of Commerce, National Bureau of Standards, Washington, D. C.
Supporting Agency: U. S. Department of Commerce, Maritime Administration, #3160410
Period: 7/72 to 6/73 Funds: $50,000

The solubilities of petroleum-type hydrocarbons are to be measured in fresh seawater. They will also be measured over different temperatures and ocean-range salinities.

SSIE No.: GBM-82

B. OIL POLLUTION CONTROL

1. CONTAINMENT

R-037-74
EXPERIMENT ON OIL BARRIERS

Principal Investigator: Howard, A. H.
Performing Organization: University of Rhode Island, Graduate School, Kingston, Rhode Island
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/1/73 to 6/74 Funds: $14,106

The contract provides for in-situ experiments which will determine oil barrier shape as affected by current, wave action and cap opening.

SSIE No.: GZ-38991-1

R-038-74
LIGHTWEIGHT OIL CONTAINMENT BARRIER FIELD TESTS

Principal Investigator: Kowalski, A.
Performing Organization: U. S. Navy, Naval Construction Battalion, Port Hueneme, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $2,000

To insure that all components in the lightweight containment barrier system are in an operative state, the project proposes to inspect all equipment in the barrier system prior to field operation tests.

SSIE No.: GZ-25338

R-039-74
A PHYSICAL BARRIER TO CONTAIN SPILLED HAZARDOUS MATERIALS IN WATERCOURSES

Principal Investigator: March, F. A.
Performing Organization: Ocean Systems, Incorporated, Herndon, Virginia
Supporting Agency: U. S. Environmental Protection Agency, Office of Water Programs, #68-01-0103
Period: 7/72 to 6/73 Funds: $148,518

The two-phase project is designed to develop and test a phys barrier effective in containing spilled oil or other hazardou materials in water-courses so as to prevent spreading into surrounding waters.

SSIE No.: GMA-951-1

R-040-74
COMBINED EFFECTS OF WAVES AND CURRENT ON PERFORMANCE OF OIL S BARRIERS, OIL POLLUTION

Principal Investigator: Milgram, J. H.
Specialty: Ocean Engineering
Performing Organization: Massachusetts Institute of Technolo School of Engineering, Cambridge, Massachusetts
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $6,780

An investigation into the development of a method to evaluate slick barrier performance as affected by current and wave act is being conducted.

SSIE No.: GZ-12116

R-041-74
FOAM PLASTIC BARRIERS FOR STOPPING SPILLS OF HAZARDOUS MATERI FROM LEAKING CONTAINERS

Principal Investigator: Mitchell, R.
Performing Organization: Rockwell International Corporation, Canoga Park, California
Supporting Agency: U. S. Environmental Protection Agency, Of of Water Program, #68-01-0106
Period: 7/72 to 6/73 Funds: $99,072

The project's objective is to investigate the possibility of developing foam plastic barriers to plug leaks of hazardous materials from ruptured containers in or out of water.

SSIE No.: GMA-960-1

R-042-74

EFFECTS OF CURRENTS AND WAVES ON FLOATING OIL SLICKS RETAINED BY A BARRIER

Principal Investigator: Unknown
Performing Organization: Texas A & M University System, Graduate School, College Station, Texas
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

A hydrodynamics study is being conducted which will provide data to aid in the design of oil barriers to be used under high wave and current conditions.

SSIE No.: GZF-43

R-043-74

FAST CURRENT OIL CONTROL SYSTEM PROJECT

Principal Investigator: Unknown
Performing Organization: University of Michigan, Graduate School, Ann Arbor, Michigan
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The project involves several tasks in developing an oil control system, including development of barrier models and determination of the effects of water turbulence on the stability of these systems.

SSIE No.: GZ-38885-1

R-044-74

OIL BARRIER STANDARD TEST REQUIREMENTS

Principal Investigator: Unknown
Performing Organization: U. S. Department of Transportation, Coast Guard, Washington, District of Columbia
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74

Special barrier evaluation equipment and test techniques are being developed to test oil pollution control barriers.

SSIE No.: GZF-54

R-045-74
OIL CONTAINMENT SYSTEM

Principal Investigator: Unknown
Performing Organization: Texas A & M University System, Graduate School, College Station, Texas
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: $12,600

A study to investigate the effects of waves and currents on a floating oil slick retained by a barrier is being conducted.

SSIE No.: GZ-38326-1

R-046-74
OIL CONTAINMENT SYSTEMS-CHEMICALLY JELLED BOOMS

Principal Investigator: Unknown
Performing Organization: U. S. Environmental Protection Agency, Office of Water Programs, Washington, D. C.
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: Unknown

A chemical agent which will retard the spread of oil by reacting primarily with leading edges of an oil slick, is being developed.

SSIE No.: GZ-12108

R-047-74
OIL SPILL CONTAINMENT

Principal Investigator: Unknown
Performing Organization: U. S. Air Force, Flight Training Command, Edwards, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $21,701

The contract provides assistance in the development of air drop techniques for a program testing lightweight oil containment barriers.

SSIE No.: GZF-65

R-048-74
OIL SPILL PREVENTION--TANK JELLING AGENTS

Principal Investigator: Unknown
Performing Organization: U. S. Department of Transportation, Coast Guard, Washington, District of Columbia
Supporting Agency: U. S. Department of Transportation Coast Guard
Period: 7/72 to 6/73 Funds: Unknown

The feasibility of selectively jelling crude oil in damaged cargo tanks using chemical methods is being evaluated.

SSIE No.: GZF-53

R-049-74
MECHANICAL CONTROL OF OIL SPILLS UTILIZING A STREAMLINE BOOM

Principal Investigator: Wooten, D.
Performing Organization: Ultrasystems Incorporated, Newport Beach California
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #68-01-0182, 72P19584
Period: 7/73 to 6/74 Funds: Unknown

A streamlined oil containment and collection boom is being develop tested, and evaluated.

SSIE No.: AO-19584-1

2. CLEANUP

R-050-74
OIL SLICK DISPERSANT

Principal Investigator: Cramond, D. N. and J. Gamilis
Performing Organization: ICI Australia Limited, Ascot Vale, Victoria, Australia
Supporting Agency: ICI Australia Limited
Period: 7/72 to 6/73 Funds: Unknown

A program to formulate a suitable oil slick dispersant using both toxic/non-toxic and/or biodegradable/nonbiodegradable materials is being carried out.

SSIE No.: AN-844

R-051-74
DESIGN A MOBILE WASHING SYSTEM

Principal Investigator: Dean, R. C.
Performing Organization: Ecological Research Corporation, Hanover, New Hampshire
Supporting Agency: U. S. Environmental Protection Agency, Office of Water Programs
Period: 7/72 to 6/73 Funds: $43,100

Research is being conducted to develop and test a pilot scale system for cleaning beach sand contaminated by oil.

SSIE No.: GMA-820-1

R-052-74
INVESTIGATIONS OF METHODS OF CLEANING OIL-CONTAMINATED BIRDS

Principal Investigator: Ferrel, C. M.
Performing Organization: State Department of Fish and Game, Sacramento, California
Supporting Agency: U. S. Department of the Interior Bureau of Sport Fishing and Wildlife, Federal Aid Division, #W-52-R-17-1-5
Period: 7/72 to 6/73 Funds: $2,584

Oil cleaning techniques and various types of cleaners are being developed and evaluated for usage on wildlife contaminated by oil. Observations on ease of use and toxic or stress effects on the animals will be emphasized.

Biological Effects

SSIE No.: GUN-9747

R-053-74
SEPARATION OF OIL FROM WASTEWATERS

Principal Investigator: Gloyna, E. F., J. Chieu, N. Patel, and J. J. King
Specialty: Civil Engineering
Performing Organization: University of Texas, School of Engineering, Austin, Texas
Supporting Agency: University of Texas
Period: 7/73 to 6/74 Funds: Unknown

Several types of filtration and coalescence media will be used to investigate the possibility of developing a process to separate emulsified oil from wastewaters.

SSIE No.: NTX-218-1

R-054-74
JOINT API-EPA-USCG CONFERENCE ON PREVENTION AND CONTROL OF OIL SPILLAGE

Principal Investigator: Gould, J. R.
Performing Organization: American Petroleum Institute, Washington, D. C.
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #15080 EIL, 72P21114
Period: 7/72 to 6/73 Funds: Unknown

A three-day conference to deal with prevention, containment, harvesting, cleanup, and fate and behavior of oil in water is to be convened.

SSIE No.: AO-21114

R-055-74
PERFORMANCE TESTING OF PROTOTYPE SYSTEMS AND DEVICES DEVELOPED TO REMOVE AND SEPARATE SPILLED OIL

Principal Investigator: Markel, A. and R. A. Bianchi
Performing Organization: Reynolds International, Richmond, Virginia
Supporting Agency: American Petroleum Institute
Period: 1/73 to 12/73 Funds: $150,000

Sea tests of prototype oil spill cleanup systems are being conducted in order to provide information to oil spill cooperatives and member companies on devices developed to remove and separate oil.

SSIE No.: PAP-73

R-056-74

DEVELOPMENT OF CLASSIFICATION SCALE FOR CHARACTERIZING BILGEWATERS USED IN EVALUATING OIL REMOVAL TECHNIQUES

Principal Investigator: Unknown
Performing Organization: General American Transportation Corporation, Chicago, Illinois
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

No summary provided.

SSIE No.: GZ-38990-1

R-057-74

SURFACE SKIMMER FOR REMOVING FUEL OIL SPILLS FROM WATER SURFACE

Principal Investigator: Unknown
Performing Organization: Florida Power and Light Company, Miami, Florida
Supporting Agency: Florida Power and Light Company
Period: 7/73 to 6/74 Funds: Unknown

No summary provided.

SSIE No.: AQ-878

C. EFFECTS OF OIL POLLUTION

1. BIOLOGICAL

R-058-74
NAVY ENVIRONMENT. WORKSHOP ON THE MICROBIAL DEGRADATION OF OIL POLLUTANTS

Principal Investigator: Ahearn, D. G.
Specialty: Biology
Performing Organization: Georgia State University, School of Arts, Atlanta, Georgia
Supporting Agency: U. S. Department of Defense, Navy, DN223668, N00014-73-C-0066
Period: 7/73 to 6/74 Funds: $15,500

A workshop on microbial degradation of oil will be conducted and the results will be published.

Cleanup

SSIE No.: GQN-223668-1

R-059-74
NAVY ENVIRONMENT: BIODEGRADATION OF OIL POLLUTANTS BY YEAST AND YEASTLIKE FUNGI

Principal Investigator: Ahearn, D. G. and W. L. Cook
Specialty: Biology
Performing Organization: Georgia State University, School of Arts, Atlanta, Georgia
Supporting Agency: U. S. Department of Defense, Navy DN123203, N00014-71-C-0145
Period: 7/73 to 6/74 Funds: $16,998

Microbial biodegradation of oil will be examined for the factors governing degradation and the degradation products. Mixed yeast populations will be tested on oiled substrates and lastly technology to utilize the study results will be developed.

Cleanup

SSIE No.: GQN-123203-3

R-060-74
INVESTIGATION OF THE BEHAVIOR, FATE, AND EFFECTS OF OIL UTILIZING A SUBMERGED HABITAT

Principal Investigator: Allen, A. A.

Performing Organization: Marconsult, Incorporated, Santa
Monica, California

Supporting Agency: U. S. Department of Commerce National
Oceanic & Atmospheric Adminstration,
Office of Coastal Environment
Period: 1/73 to 6/73 Funds: Unknown

In situ evaluations were conducted on the biological and physicochemical interactions of several types of oil with the marine environment. The project included development of underwater pollution research techniques and determination of the effects of oil on benthic and epibenthic organisms.

SSIE No.: GBP-1251

R-061-74

CLINICAL STUDY OF TOXICITY TO BIOTA OF OIL IN WATER - PROJECT NO. 05-20C

Principal Investigator: Anderson, J.
Performing Organization: Texas A&M University System Center
for Marine Resources, College
Station, Texas
Supporting Agency: American Petroleum Institute
Period: 7/73 to 6/74 Funds: Unknown

The effects of oil on marine organisms will be studied, including physiological effects of oil, and rate of turnover and accumulation of oil in animal tissue. Quantity and types of hydrocarbon pollutants in tissues will be carefully studied.

SSIE No.: PAP-66

R-062-74

BIOLOGICAL COUNTERMEASURES TO MITIGATE THE EFFECTS OF HAZARDOUS MATERIAL SPILLS

Principal Investigator: Armstrong, N. and T. H. Roush
Specialty: Civil Engineering
Performing Organization: University of Texas, School of
Engineering, Austin, Texas
Supporting Agency: U. S. Environmental Protection Agency,
Office of Research and Development,
#72P20581
Period: 7/72 to 6/73

A feasibility study is being conducted to investigate the use of microorganisms in treating hazardous materials spills in watercourses.

SSIE No.: GMA-1674

R-063-74
CEPEX-ASSESSMENT OF NATURAL CONCENTRATIONS AND MANMADE SOURCES OF LOW MOLECULAR WEIGHT HYDROCARBONS IN SAANICH INLET (Abbrev.)

Principal Investigator: Atkinson, L. P.
Performing Organization: Skidaway Institute of Oceanography, Savannah, Georgia
Supporting Agency: U. S. National Science Foundation, Division of National and International Progress, GX-39141 #1
Period: 2/74 to 1/75 Funds: $24,100

The effects on community stability of sublethal levels of chemical pollutants in the ocean is being investigated by CEPEX (Controlled Ecosystem Pollution Experiment) using artificial enclosures as controlled ecosystems.

SSIE No.: GSN-1250-1

R-064-74
THE EFFECT OF HYDROCARBON POLLUTION ON THE CARBON DIOXIDE-WATER SYSTEM

Principal Investigator: Atkinson, G. and F. Garland
Specialty: Chemistry
Performing Organization: University of Oklahoma Research Institute, Norman, Oklahoma
Supporting Agency: U. S. Department of the Interior, Office of Water Resources Research, #A-045-Okla
Period: 7/73 to 6/74 Funds: $9,850

An investigation into the effect of hydrocarbons on the carbon dioxide-water system is being conducted in an effort to determine long-term effects of hydrocarbon pollution. It has been shown that this chemical system is sensitive to hydrocarbon concentration.

SSIE No.: GUW-3709-1

R-065-74
NAVY ENVIRONMENT: MICROBIAL METABOLISM OF HYDROCARBONS UNDER CONDITIONS OF EXTREME COLD

Principal Investigator: Atlas, R. M. and R. E. Cameron

Performing Organization: U. S. National Aeronautics and Space Administration Jet Propulsion Lab., Pasadena, California
Supporting Agency: U. S. Department of Defense, Navy, DN 323030, NAONR-30-73
Period: 7/73 to 6/74 Funds: $14,795

Microbial metabolism of hydrocarbons will be examined under conditions common to Arctic and Antarctic waters.

Cleanup

SSIE No.: GQN-323030

R-066-74
DEMONSTRATION OF OILY WASTE DISPOSAL BY SOIL CULTIVATION PROCESS

Principal Investigator: Baldwin, B.
Performing Organization: Shell Oil Co., Deer Park, Texas
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development #12050 EZG, 72P21245
Period: 7/73 to 6/74 Funds: Unknown

In a series of experiments oily sludges (crude tank bottoms, Bunker C, intermediate wax oils) will be spread and cultivated into the ground. The condition of the oil and microbiological activity will be monitored.

Cleanup

SSIE No.: 40-21245-1

R-067-74
BIODEGRADATION OF OIL SLICKS IN THE MARINE ENVIRONMENT

Principal Investigator: Bartha, R.
Specialty: Microbiology & Biochemistry
Performing Organization: Rutgers-The State University, Agricultural Experiment Station, New Brunswick, New Jersey
Supporting Agency: New Jersey State Government #0055501, NJ00504
Period: 7/73 to 6/74 Funds: Unknown

Natural biodegradation rates of oil slicks are being determined in the marine environment. From the studies of degradation pathways and intermediate products from biological activity, results will be used to develop new techniques for accelerating the biodegradation of oil slicks.

Cleanup

SSIE No.: GY-55501-3

R-068-74
NAVY ENVIRONMENT: BIODEGRADATION OF OIL SLICKS IN THE MARINE ENVIRONMENT

Principal Investigator: Bartha, R.
Specialty: Microbiology and biochemistry
Performing Organization: Rutgers-The State University, School of Arts, New Brunswick, New Jersey
Supporting AGency: U. S. Department of Defense, Navy, DN023175, N00014-67-A-0115-0005
Period: 7/73 to 6/74 Funds: $17,986

Biological degradation in the marine environment will be examined. New techniques to accelerate biodegradation will be developed after measuring natural degradation rates, identifying degradation pathways and evaluating current oil slick elimination measures.

Cleanup

SSIE No.: GQN-23175-4

R-069-74
INDUSTRY PEST AND MICROBIOLOGY PROBLEMS

Principal Investigator: Beckman, C. and F. Howard
Specialty: Entomology and Plant Pathology
Performing Organization: University of Rhode Island Agricultural Experiment Station, Kingston, Rhode Island
Supporting Agency: Rhode Island State Government #0024708, RI00604
Period: 7/72 to 6/73 Funds: Unknown

Project emphasis has been placed on studies of natural microbial activity in the biodegradation of oil pollutants in low temperature environments.

Cleanup

SSIE No.: GY-24708-4

R-070-74

NEUSTON OF LAKE MICHIGAN

Principal Investigator: Beeton, A. M., R. Beeton, and M. Mayh
Performing Organization: University of Wisconsin Center for Great Lakes Studies, Milwaukee, Wisconsin
Supporting Agency: U. S. Department of Commerce, National Oceanic & Atmospheric Administration, Sea Grant Office #2-34209
Period: 9/72 to 8/73 Funds: Unknown

The biota of the air/water interface of Lake Michigan is to be studied, and the effects of oil slicks and polyethylene oxide on neuston communities determined.

SSIE No.: GBP-863

R-071-74

THE EFFECTS OF OIL ON THE BIOLOGY OF THE STRIPED BASS, *MORONE SAXATILIS*

Principal Investigator: Boda, J.
Performing Organization: University of California School of Agriculture, Davis, California
Supporting Agency: U. S. Department of Commerce National Oceanic & Atmospheric Administration, National Marine Fisheries Service #028180400
Period: 7/72 to 6/73 Funds: Unknown

The study will involve measurement of acute and chronic effects of selected hydrocarbons in several life stages of the striped bass. Experiments will include physiological and behavioral studies of the bass.

SSIE No.: GBP-781

R-072-74

THE CONSEQUENCES OF SMALL, CHRONIC OIL CONTAMINATIONS ON THE BIOLOGY OF THE DIPTERANS IN LAKE CHAMPLAIN

Principal Investigator: Brammer, J. D. and B. L. Parker
Specialty: Zoology
Performing Organization: University of Vermont, School of Arts, Burlington, Vermont
Supporting Agency: U. S. Department of the Interior, Office of Water Resources Research #A-018-VT

Period: 7/73 to 6/74 Funds: Unknown

The project will investigate the biological effects of low level oil contamination upon dipterans. Mosquitoes will be exposed to controlled levels of oils, and changes in the animal at several physiological levels will be determined.

SSIE No.: GUW-3932

R-073-74

NITROGEN AND PHOSPHOROUS AS NUTRIENTS LIMITING BIODEGRADATION

Principal Investigator: Brock, T. D.
Performing Organization: University of Wisconsin, School of Agriculture, Madison, Wisconsin
Supporting Agency: U. S. Department of the Interior, Office of Water Resource Research #A-054-WIS
Period: 7/73 to 6/74 Funds: $2,500

Research will be conducted on the roles of nitrogen and/or phosphorous as limiting nutrients in the oxidation of oil and some of its components by microorganisms of the surface water of Lake Mendota. Resulting information will be used in predicting amounts of oil tolerable in given freshwater systems.

SSIE No.: GUW-3943

R-074-74

FATE AND EFFECT OF OIL IN THE ENVIRONMENT OF THE COASTAL GULF OF MEXICO

Principal Investigator: Brown, L. R.
Performing Organization: Mississippi State University School of Arts, State College, Mississippi
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development
Period: 7/73 to 6/74 Funds: $97,584

A field and laboratory study of the fate of crude oil in the marine environment of coastal Gulf waters is being conducted. The study period will include chronic effect assessment and ecosystem recovery.

SSIE No. AO-19734-1

R-075-74
HYDROCARBON BASELINE STUDIES--PRINCE WILLIAM SOUND, ALASKA

Principal Investigator: Bruce, H.
Performing Organization: U. S. Department of Commerce, Auke Bay Fisheries Laboratory, Auke Bay, Alaska
Supporting Agency: U. S. Department of Commerce, National Oceanic & Atmospheric Administration, Office of Coastal Environment
Period: 7/73 to 6/74 Funds: Unknown

Selected marine organisms and sediments in Price William Sound will be analyzed to determine hydrocarbon levels present.

Analysis

SSIE No.: GBP-1252

R-076-74
TRANSFER OF PETROLEUM RESIDUES IN SARGASSUM COMMUNITIES AND THE WATERS OF THE SARGASSO SEA

Principal Investigator: Butler, J. N. and B. F. Morris
Performing Organization: Bermuda Biological Station for Research, St. George West, Bermuda
Supporting Agency: U. S. National Science Foundation, Division of National and International Progress, GX-32883A #1
Period: 5/74 to 4/75 Funds: $51,550

The transfer of petroleum hydrocarbons through several trophic levels in a Sargasso Sea marine community is being investigated. Comparisons will be made between marine organism hydrocarbon content and tar sample hydrocarbon content.

SSIE No.: GSN-838-2

R-077-74
INVESTIGATIONS OF THE BREAKDOWN AND SUBLETHAL BIOLOGICAL EFFECTS OF TRACE PETROLEUM CONSTITUENTS IN THE MARINE ENVIRONMENT

Principal Investigator: Calder, J. A.
Specialty: Oceanography
Performing Organization: Florida State University, School of Arts, Tallahassee, Florida
Supporting Agency: U. S. National Science Foundation, Division of National and International Progress, #GX-37351
Period: 2/73 to 1/74 Funds: $42,100

An investigation into the fate and impact of petroleum at the bacterial and molecule level in the ocean is being conducted.

Chemical

SSIE No.: GSN-1151

R-078-74

EFFECTS OF VARYING LEVELS OF PETROLEUM ON WILDLIFE AND PLANTS OF LOUISIANA COASTAL MARSHES

Principal Investigator: Chabreck, R. H.
Performing Organization: Louisiana State University, Agricultural Experiment Station, Baton Rouge, Louisiana
Supporting Agency: Louisiana State Government #0061671 LAB01594
Period: 7/73 to 6/74 Funds: Unknown

Immediate and delayed effects of various petroleum levels on wildlife and plants are being measured to develop a method for predicting the effects of accidental oil spills.

SSIE No.: GY-61671-1

R-079-74

A STUDY OF THE COMMUNITY STRUCTURE, DISTRIBUTION, AND RELATIVE ABUNDANCE OF ICHTHYOPLANKTON IN THE WESTERN BEAUFORT SEA

Principal Investigator: Cobb, J. S.
Performing Orgnization: University of Rhode Island School of Arts, Kingston, Rhode Island
Supporting Agency: U. S. Department of Commerce, National Oceanic & Atmospheric Administration, National Marine Fisheries Service, #18131000000
Period: 7/72 to 6/73 Funds: $2,000

Descriptions are being provided concerning the community structure and abundance of ichthyoplankton and other zooplankters in the Western Beaufort Sea. The objective of the study is to increase the understanding of the ecology of polar waters that are subject to potential pollution from the Arctic oilfields.

SSIE No.: GBP-1228

R-080-74
NAVY ENVIRONMENT: MICROBIAL DEGRADATION OF PETROLEUM IN TH
MARINE ENVIRONMENT

Principal Investigator: Colwell, R. R.
Specialty: Microbiology
Performing Organization: University of Maryland, School of
Agriculture, College Park, Marylai
Supporting Agency: U. S. Department of Defense, Navy,
DN223667, N00014-67-A-0239-0027
Period: 7/73 to 6/74 Funds: $29,175

Microbial populations ranging from estuarine to deep-sea marine will be surveyed for oil degradation capabilities. Microorganisms with oil degradation abilities will be analy:

Cleanup

SSIE No.: GQN-223667

R-081-74
OIL POLLUTION ANALYTICAL METHODS

Principal Investigator: Cram, S. P.
Performing Organization: U. S. Department of Commerce,
National Bureau of Standards,
Washington, D. C.
Supporting Agency: U. S. Department of Commerce, Maritime
Administration, #310-9499(NBS. NO.)
Period: 7/72 to 6/73 Funds: $90,000

Toxic compounds in seawater are being determined by chromatographic separation and analytic methods in order to investigate the effects of crude oil on fish and other aquatic organisms.

SSIE No.: GBM-90

R-082-74
TOXICITY OF CRUDE OIL AND OIL EMULSIFIERS TO VARIOUS LIFE STAGES OF MARINE ORGANISMS

Principal Investigator: Culley, D. D.
Performing Organization: Louisiana State University,
Agricultural Experiment Station,
Baton Rouge, Louisiana
Supporting Agency: Louisiana State Government #0031728
LAB01486
Period: 7/72 to 6/73 Funds: Unknown

Studies are being conducted to determine the acute and chronic effects of crude oil and oil emulsifiers on marine organisms at several life stages. Flavor quality of marine organisms exposed to crude oil is also being determined.

SSIE: GY-31728-2

R-083-74
INTERNATIONAL ENVIRONMENTAL ASSESSMENT STUDIES - INDONESIA AND GHANA

Principal Investigator: Eilers, W. L. and P. H. Freeman
Performing Organization: Smithsonian Institute, Washington, D. C.
Supporting Agency: U. S. Department of State Agency for International Development, #AID/CSD-2608-3
Period: 7/73 to 6/74 Funds: $145,237

One objective of the study was to examine the potential environmental consequences of marine oil pollution in tropical waters in Indonesia.

SSIE No.: GI-348

R-084-74
NAVY ENVIRONMENT: BIOLOGICAL DEGRADATION OF PETROLEUM IN THE MARINE ENVIRONMENT

Principal Investigator: Fair, J.
Performing Organization: Houston Research Incorporated, Houstin, Texas
Supporting Agency: U. S. Department of Defense, Navy DN223520, N00014-72-C-0471
Period: 7/72 to 6/73 Funds: $48,949

Biodegradation of oil by previously isolated cultures of microorganisms with intact or disrupted cells will be evaluated. Standards for using microorganisms for oil degradation in natural ecosystems will be formulated.

Cleanup

SSIE No.: GQN-223520

R-085-74
THE SEDIMENT ENVIRONMENT OF PORT VALDEZ AND GALENA BAY, ALASKA AND THE EFFECT OF OIL ON THIS ECOSYSTEM

Principal Investigator: Feder, H. M.
Performing Organization: University of Alaska, School of Biological Sciences, College, Alaska
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #800944
Period: 7/72 to 6/73 Funds: $57,231

The project proposes to obtain baseline information concerning the mudflat ecosystems of Port Valdez and Galena Bay by studying the physical, chemical and biological characteristics of the sediments. The effects of Prudhoe Bay crude oil on these parameters will then be examined.

Physical, Chemical

SSIE No.: GMA-1548

R-086-74
NAVY ENVIRONMENT: ENZYMATIC REMOVAL OF OIL POLLUTANTS IN THE MARINE ENVIRONMENT

Principal Investigator: Friede, J. D.
Specialty: Biology
Performing Organization: Villanova University, School of Liberal Arts, Villanova, Pennsylvania
Supporting Agency: U. S. Department of Defense, Navy DN223772, N00014-73-C-0186
Period: 7/73 to 6/74 Funds: $15,000

Hydrocarbon oxidizing enzymes are to be isolated from hydrocarbon degrading microorganisms. The enzymes will then be chemically modified so they may be used to convert petroleum to water soluble products.

Cleanup

SSIE No.: GQN-223772-1

R-087-74
NAVY ENVIRONMENT--ENZYMATIC REMOVAL OF OIL IN THE MARINE ENVIRONMENT

Principal Investigator: Gholson, R. K. and P. Guire
Specialty: Biochemistry

Performing Organization: Oklahoma State University, School of Arts, Stillwater, Oklahoma
Supporting Agency: U. S. Department of Defense, Navy DN123078, N00014-71-A-0004-0001
Period: 7/72 to 6/73 Funds: $17,314

Hydrocarbon oxidizing enzymes are to be isolated from hydrocarbon degrading microorganisms. The enzymes will then be chemically modified so they may be used to convert petroleum to water soluble products.

Cleanup

SSIE No.: GQN-123078-2

R-088-74

FUNDAMENTAL ANALYSIS TO ENABLE DETERMINING EFFECTS OF OIL POLLUTION

Principal Investigator: Glynn, P. W., C. Birkeland, A. A. Reimer, and J. R. Young
Performing Organization: U. S. Environmental Protection Agency, Washington, D. C.
Supporting Agency: Smithsonian Institution Tropical Research Institute, #14-12-874
Period: 10/72 to 8/73 Funds: Unknown

A program has been proposed which will establish a basis for evaluating the biological costs of future oil spills on tropical and related ecosystems.

SSIE No.: GTA-64-1

R-089-74

ASSESSMENT OF INTERTIDAL ANIMALS AND PLANTS FOLLOWING CONTAMINATION BY OIL

Principal Investigator: Hand, C.
Performing Organization: University of California, Bodega Marine Laboratory, Bodega Bay, California
Supporting Agency: U. S. Environmental Protection Agency, Office of Research & Development, #15080 HFS
Period: 7/73 to 6/74 Funds: Unknown

Repopulation studies are being conducted on several intertidal sites in which the marine biota suffered loss through death and retardation as a result of the San Francisco Bay Standard Oil incident.

SSIE No.: GMA-1645-1

R-090-74
PHYTOPLANKTON ECOLOGY AT PRUDHOE BAY, ALASKA

Principal Investigator: Horner, R.
Performing Organization: Univ. of Alaska, Institute of Marine Sciences, College, Alaska
Supporting Agency: U. S. Department of Commerce, National Oceanic & Atmospheric Administration, Sea Grant Office #1-36109
Period: 9/72 to 8/73 Funds: $19,600

An objective of the study is to determine the effects of petroleum and petroleum products on the metabolic activities of the phytoplankton of Prudhoe Bay. These studies will provide information from which the impact of oil development in this vicinity can be measured.

SSIE No.: GBP-1017

R-091-74
BIOLOGICAL DEGRADATION OF HYDROCARBONS IN WATER

Principal Investigator: Houston, C. W. and A. R. Thompson
Specialty: Bacteriology and Biophysics
Performing Organization: University of Rhode Island School of Arts, Kingston, Rhode Island
Supporting Agency: U. S. Department of the Interior, Office of Water Resources Research #B-033-RI
Period: 7/72 to 6/73 Funds: $33,529

Mass transfer characteristics of a bacterial-hydrocarbon system is being studied. Data from the research should aid in the understanding of factors involved in microbial breakdown of hydrocarbons in water.

Cleanup

SSIE No.: GUW-1312-4

R-092-74
TOXICITY STUDIES ON STRIPED BASS

Principal Investigator: Hughes, J. S.
Performing Organization: State Wildlife & Fish Commission, New Orleans, Louisiana
Supporting Agency: U. S. Department of the Interior, Bureau of Sport Fishing & Wildlife, Federal Aid Division, #F-15-6-4
Period: 7/72 to 6/73 Funds: $5,250

Possible causes and means of preventing mortality of striped bass eggs, fry, and fingerlings are being investigated. The toxicity of pollutants such as oil well effluents to various sizes of bass will be determined.

SSIE No.: GUN-4361-5

R-093-74

EFFECTS OF CRUDE OIL SPILLS ON TERRESTRIAL VEGETATION AND ON LAKE PHYTOPLANKTON IN THE NORMAN WELLS REGION AND THE TUKTOYAKTUK REGION NWT

Principal Investigator: Hutchinson, T. C., J. Hellebust & M. Telford
Performing Organization: University of Toronto, Ontario, Canada
Supporting Agency: Department of Indian Affairs and Northern Development, Canadian Government
Period: 7/73 to 3/74 Funds: $86,000

Simulated oil spills have been carried out in shallow freshwater and on land during different seasons and the effects on the phytoplankton and terrestrial plants have been examined.

SSIE No.: AL-718-1

R-094-74

NAVY ENVIRONMENT: EFFECTS OF OIL POLLUTION ON MARINE MACROORGANISMS

Principal Investigator: Kittredge, J. S.
Performing Organization: City of Hope National Medical Center, Duarte, California
Supporting Agency: U. S. Department of Defense, Navy DN 123140 N00014-71-C-0103
Period: 7/73 to 6/74 Funds: $18,363

Several crude oils will be fractionated and the resultant compounds will be measured for toxicity to the chemoreceptive membranes of marine macroorganisms.

SSIE No.: GQN-123140-2

R-095-74

PHYSIOLOGICAL EFFECTS OF THE WATER SOLUBLE HYDROCARBONS ON MARINE INVERTEBRATES

Principal Investigator: Kittredge, J. S.

Performing Organization: University of Texas, School of Medicine, Galveston, Texas
Supporting Agency: U. S. National Science Foundation, Division of National and International Progress, #GX-37851
Period: 3/73 to 2/74 Funds: $26,800

A simple, standard bioassay technique is being developed that will be based on the effects of pollutants on the rhythmic beating of cilia of certain marine organisms.

SSIE No.: GSN-1164

R-096-74
THE EFFECTS OF ENVIRONMENTAL STRESS ON THE COMMUNITY STRUCTURE AND PRODUCTIVITY OF SALT MARSH EPIPHYTIC COMMUNITIES

Principal Investigator: Lee, J. J., W. A. Muller, M. McEnery, J. Garrison, E. Kennedy, and H. Rubin
Specialty: Biology
Performing Organization: City University of New York, Graduate Schook, New York, New York
Supporting Agency: U. S. Atomic Energy Commission, Biomedical and Environmental Research Division, Ber-74-165, #AT(11-1)3254 COPE AA
Period: 9/73 to 8/74 Funds: $47,300

The subtle variables which regulate the microbial and micrometazoan assemblages within metropolitan region New York salt marshes and shallow embayments will be defined and analyzed. Food chain assessments will be made and environmental stress (including petrochemical) experiments and water quality assays will be conducted.

SSIE No.: GPE-1694-5

R-097-74
CHEMICAL-BIOLOGICAL FOLLOW-UP STUDY ON THE SCHUYKILL RIVER OIL SPILL

Principal Investigator: Mainville, C.
Performing Organization: Ocean Science and Engineering, Inc., Rockville, Maryland
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #68-01-0781, 72P20311
Period: 7/73 to 6/74 Funds: Unknown

The effects of the 1972 Schuykill River oil spill are being determined by studying riverbank vegetation and analyzing aquatic communities and fish for oil components (heavy metals and polycyclic aromatic hydrocarbons respectively).

SSIE No.: AO-20311-1

R-098-74

OFFSHORE TERMINAL OPERATIONS IMPACT

Principal Investigator: Maurer, D.
Performing Organization: University of Delaware, School of Marine Science, Newark, Delaware
Supporting Agency: U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Sea Grant Office #2-35223
Period: 9/72 to 8/73 Funds: Unknown

Studies are being conducted which will determine the environmental impact of proposed sites for offshore terminals inside and surrounding Delaware Bay.

General

SSIE No.: GBP-1113

R-099-74

THE IMPACT OF MICROORGANISMS ON OIL

Principal Investigator: Meyers, S. P.
Performing Organization: Louisiana State University, School of Agriculture, Baton Rouge, Louisiana
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #800993, 72P14726
Period: 7/73 to 6/74 Funds: Unknown

The role of microorganisms in oil-contaminated sediment will be studied. Emphasis will be on finding hydrocarbon pollution indicator species and species that can be introduced to accelerate oil biodegradation.

Cleanup

SSIE No.: AO-14726-1

R-100-74
EFFECTS OF CRUDE OIL ON AQUATIC ORGANISMS OF THE CENTRAL ALASKAN FISHERIES

Principal Investigator: Morrow, J. E., R. Gordon, and R. C. Gordon
Performing Organization: University of Alaska, School of Biological Sciences, College, Alaska
Supporting Agency: U. S. Environmental Protection Agency, Office of Water Programs, #801039
Period: 7/72 to 6/73 Funds: Unknown

Experiments are being conducted to investigate the toxicity of various substances in crude oil on coho salmon. Particular emphasis will be placed on physiological effects of short chain hydrocarbons.

SSIE No.: GMA-793-1

R-101-74
MARINE PETROLEUM POLLUTION - BIOLOGICAL EFFECTS AND CHEMICAL CHARACTERIZATION

Principal Investigator: Nicol, J. A. and C. Vanbaalen
Performing Organization: University of Texas, Marine Science Institute, Port Aransas, Texas
Supporting Agency: U. S. National Science Foundation, Division of National and International Progress, #GX-37345
Period: 2/73 to 1/74 Funds: $142,150

Lab and field studies will be carried out studying the impact of the aromatic fraction of petroleum on bacteria, microalgae, and marine invertebrates.

SSIE No.: GSN-1146

R-102-74
MICROBIOLOGICAL SEEDING TO ACCELERATE DEGRADATION OF HYDROCARBONS

Principal Investigator: Oppenheimer, C.
Performing Organization: University of Texas, Marine Science Institute, Port Aransas, Texas
Supporting Agency: U. S. Environmental Protection Agnecy, Office of Research and Development #15080EHF, 72P21565
Period: 7/73 to 6/74 Funds: Unknown

The project involves the development of techniques to accelerate the natural degradation process of oil in marine waters.

Cleanup

SSIE No.: GMA-1643-1

R-103-74
EFFECT OF DIESEL OIL ON STREAM LIFE

Principal Investigator: Patterson, B.
Performing Organization: State Department of Game and Fish, Santa Fe, New Mexico
Supporting Agency: U. S. Department of the Interior, Bureau of Sport Fish and Wildlife, Federal Aid Division, #F-22-R-15-B-2
Period: 4/73 to 3/74 Funds: $1,275

The project will determine repopulation rates of invertebrates and brown trout in a region of the Cimarron River heavily affected by diesel oil spillage.

SSIE No.: GUN-11137

R-104-74
DEGRADATION OF PETROLEUM AND RELATED COMPOUNDS IN THE BIOSPHERE

Principal Investigator: Perry, J. J.
Performing Organization: University of North Carolina, School of Agriculture, North Carolina
Supporting Agency: U. S. National Science Foundation, Division of Biological and Medical Science
Period: 9/72 to 8/73 Funds: $9,250

The degradation of hydrocarbon substrates by microorganisms and the number, distribution, and substrate specificity of these microorganisms are being studied. Emphasis is on isolation of filamentous fungi.

Cleanup

SSIE No.: GSB-10674-2

R-105-74
PHYSIOLOGY AND BIODEGRADATIVE ACTIVITIES OF THE ACTINOMYCETES AND RELATED ORGANISMS

Principal Investigator: Perry, J. J.
Specialty: Microbiology
Performing Organization: University of North Carolina, Agricultural Experimental Station, Raleigh, North Carolina
Supporting Agency: U. S. Department of Agriculture Cooperative State Research Service, North Carolina, #0014565, NC03185

Period: 7/73 to 6/74 Funds: Unknown

Isolation techniques are being used to select cultures of microorganisms that can degrade and utilize a variety of hydrocarbon substrates as an energy source. Research into the metabolic systems that regulate the nutritional process will be conducted.

Cleanup

SSIE No.: GY-14565-5

R-106-74
THE MICROBIAL DEGRADATION OF HYDROCARBONS IN MARINE ENVIRONMENTS

Principal Investigator: Perry, J. J.
Specialty: Microbiology
Performing Organization: University of North Carolina, School of Agriculture, Raleigh, North Carolina
Supporting Agency: U. S. Coastal Plains Regulatory Commission
Period: 7/72 to 6/73 Funds: Unknown

Two hundred bacterial and yeast cultures have been isolated that solely utilize hydrocarbons for growth. Several fungi which vigorously utilize a wide variety of hydrocarbons have been selected for further studies.

Cleanup

SSIE No.: GBP-11-2

R-107-74
THE ACUTE AND CHRONIC EFFECTS OF OIL DERIVATIVES, INSECTICIDES AND HERBICIDES ON AQUATIC PLANTS

Principal Investigator: Price, J. A.
Performing Organization: Mississippi State University, School of Arts, State College, Mississippi
Supporting Agency: Mississippi State University
Period: 7/73 to 6/74 Funds: Unknown

The effects of crude oil, insecticides and herbicides on the growth rate and chlorophyll content of two green algae will be determined.

SSIE No.: NMP-72

R-108-74
NAVY ENVIRONMENT: MICROBIAL DEGRADATION OF CRUDE OIL

Principal Investigator: Pritchard, P. H.
Performing Organization: State University of New York, Graduate School, Brockport, New York
Supporting Agency: U. S. Department of Defense, Navy DN223689, N00014-73-C-0074
Period: 7/73 to 6/74 Funds: $17,000

Crude oil biodegradation rates of bacteria will be studied especially as affected by environmental parameters. Biodegradation mechanisms will also be studied and the metabolic end products analyzed.

Cleanup

SSIE No.: GQN-223689-1

R-109-74
FATE, SPATIAL AND TEMPORAL DISTRIBUTION OF PETROLEUM-DERIVED ORGANIC COMPOUNDS IN THE OCEAN AND THEIR SUBLETHAL EFFECTS ON MARINE ORGANISMS

Principal Investigator: Sackett, W. M. and J. W. Anderson
Specialty: Oceanography
Performing Organization: Texas A & M University System, School of Geosciences, College Station, Texas
Supporting Agency: U. S. National Science Foundation, Division of National and International Progress, #GX-37344
Period: 2/73 to 1/74 Funds: $51,650

The fate, effects, and distribution of low molecular weight petroleum hydrocarbons (methane through C-10 including benzene and toluene) found in high concentrations in the Gulf of Mexico will be studied.

Analysis

SSIE No.: GSN-1145

R-110-74
BIOLOGICAL RECOVERY FOLLOWING AN OIL SPILL

Principal Investigator: Sanders, H. L.
Performing Organization: Woods Hole Oceanographic Institution, Woods Hole, Massachusetts

Supporting Agency: U. S. Environmental Protection Agency, Office
of Research and Development #801001
Period: 7/72 to 6/73 Funds: Unknown

Biological and sediment samples were collected and analyzed for oil following two oil spills off West Falmouth, Massachusetts in September, 1969. Such data are being used to provide information on the effects and subsequent recovery of marine organisms following the oil spill.

Analysis

SSIE No.: GMA-832-1

R-111-74
EXPERIMENTAL ECOLOGY

Principal Investigator: Smith, W. G., J. G. Gosselink, Day, Ho, Allen, and Patrick
Performing Organization: Louisiana State University, Center for Wetland Resources, Baton Rouge, Louisiana
Supporting Agency: U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Sea Grant Office #2-35231
Period: 8/72 to 7/73 Funds: $56,685

In an effort to assess detrimental impacts of land use practices such as drainage, oil spills and transportation, basic ecological data are being collected on Barataria Bay and the surrounding offshore area. The sensitivity of biological resource production to changes in system parameters and human use is being investigated.

SSIE No.: GBP-1010

R-112-74
EFFECTS OF PEOPLE AND POLLUTION ON BEACHES IN SOUTHERN CALIFORNIA

Principal Investigator: Straughan, D.
Performing Organization: University of Southern California, Allan Hancock Foundation, Los Angeles, California
Supporting Agency: U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Sea Grant Office #2-35227
Period: 11/72 to 10/73 Funds: Unknown

A study is being conducted on the effects of oil from natural seepages and spills, and oil cleanup in the intertidal zone.

Information will be used to evaluate oil tolerances and recolonization of oiled surfaces on Southern California beaches.

Cleanup

SSIE No.: GBP-934

R-113-74
TEMPERATURE EFFECTS OF SANTA BARBARA CRUDE OIL IN THE UPPER INTERTIDAL ZONE

Principal Investigator: Straughan, D.
Performing Organization: University of Southern California, Allan Hancock Foundation, Los Angeles, California
Supporting Agency: U. S. Environmental Protection Agency, Office of Water Programs, #15080 HGX
Period: 7/72 to 6/73 Funds: $14,590

The temperature effects of oil on larvae and their survival in the intertidal zone are being studied. Resulting information will assist in assessing the biological damage created by oil spills.

SSIE No.: GMA-192-1

R-114-74
RESEARCH IN OCEANOGRAPHY - DOCTORAL DISSERTATION

Principal Investigator: Teal, J. M.
Performing Organization: Woods Hole Oceanographic Institution, Woods Hole, Massachusetts
Supporting Agency: U. S. National Science Foundation, Division of Environmental Sciences, #GA-40987
Period: 11/73 to 4/75 Funds: $4,000

The project will include studying induced oxygenase enzyme systems in the fiddler crab Uca pugnax, and investigating the possible correlation of the level of enzyme activity in the crab with the amount of petroleum contamination to which the animals are exposed and can tolerate.

SSIE No.: GSV-5354

R-115-74
THE EFFECTS OF SUBLETHAL STRESSES ON THE SOCIAL BEHAVIOR OF FISHES

Principal Investigator: Todd, J. H.

Performing Organization: Woods Hole Oceanographic Institution,
Woods Hole, Massachusetts
Supporting Agency: U. S. Atomic Energy Commission, Biomedical and Environmental Research Division, #AT(11-1)-3567
Period: 10/72 to 9/73 Funds: Unknown

The effects of two sublethal environmental perturbations (heat, oil) on the behavior of fresh and marine fishes are being investigated in an effort to develop methods of predicting the fate of fishes exposed to sublethal stresses.

SSIE No.: GPE-4080-2

R-116-74
NAVY ENVIRONMENT: MICROBIAL METABOLISM OF HYDROCARBONS UNDER LOW TEMPERATURE MARINE CONDITIONS

Principal Investigator: Traxler, R. W. and A. M. Cundell
Specialty: Physiology
Performing Organization: University of Rhode Island, Graduate School, Kingston, Rhode Island
Supporting Agency: U. S. Department of Defense, Navy DN475025, N00014-68-A-0215-0013
Period: 7/73 to 6/74 Funds: $16,505

Microbial metabolism of hydrocarbons will be examined under low temperature marine conditions.

Cleanup

SSIE No.: GQN-475025

R-117-74
MICROBIAL DEGRADATION OF OIL POLLUTANTS

Principal Investigator: Unknown
Performing Organization: U. S. Navy, Office of Naval Research, Arlington, Virginia
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $7,500

Partial funding was provided for a workshop concerned with the status of microbial degradation of oil research efforts, December 1972, at Georgia State University.

Research

SSIE No.: GZ-38168

R-118-74
MICROBIOLOGICAL SEEDING TO ACCELERATE DEGRADATION OF HYDROCARBONS

Principal Investigator: Unknown
Performing Organization: University of Texas, Marine Science Institute, Port Aransas, Texas
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development
Period: 7/72 to 6/73 Funds: $99,904

Laboratory and tank experiments on hydrocarbon degrading microorganisms to develop rapid growing, UV resistant microorganisms are being extended to estuarine areas.

Cleanup

SSIE No.: GMA-1658

R-119-74
OIL POLLUTANT BASELINES AND TRENDS IN THE MARINE ENVIRONMENT

Principal Investigator: Unknown
Performing Organization: Nova University, Graduate School, Dania, Florida
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $39,000

Organic matter in the sea is being studied to establish baseline trends of petroleum contaminants.

SSIE No.: GZ-25379

R-120-74
OIL POLLUTION CONTROL - SPECIAL TECHNIQUES - BACTERIOLOGICAL DEGRADATION OF OIL SLICKS

Principal Investigator: Unknown
Performing Organization: U. S. Department of Transportation, Coast Guard, Washington, District of Columbia
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

Special bacteria are being developed to accelerate material degradation of oil spills.

Cleanup

SSIE No.: GZF-55

R-121-74
STUDY OF ARCTIC OIL BIODEGRADATION

Principal Investigator: Unknown
Performing Organization: University of Alaska, Institute of Marine, Sciences, College, Alaska
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

A study is being conducted to determine if in Arctic waters biodegradation is a factor in the eventual elimination or reduction of hydrocarbons.

Cleanup

SSIE No.: GZ-36326-1

R-122-74
STREAM POLLUTION

Principal Investigator: Warren, C. E.
Performing Organization: Oregon State University, Agricultural Experiment Station, Corvallis, Oregon
Supporting Agency: Oregon State Government, #0028633, ORE00030
Period: 7/73 to 6/74 Funds: Unknown

The project proposes to examine the influence which environmental changes have on fish and other inland water organisms. Studies on the flavor quality of edible marine organisms after oil waste discharge indicated little or no effect on the marine organisms exposed.

Economic

SSIE No.: GY-28633-1

R-123-74
MONITORING OF MARINE POLLUTION PROBLEM

Principal Investigator: Westman, W. E.
Performing Organization: University of Queensland, St. Lucia, Queensland, Australia
Supporting Agency: University of Queensland
Period: 7/72 to 6/73 Funds: Unknown

In the first phase the results of offshore development in terms of potential ecological problems are considered. In the second phase local pollution monitoring, in particular biological monitoring is being studied for possible statewide application.

General

SSIE No.: AN-718

2. PHYSICAL

R-124-74
MEASUREMENT AND MOLECULAR INTERPRETATION OF SURFACE SHEAR VISCOSITY

Principal Investigator: Goodrich, F. C.
Specialty: Chemistry
Performing Organization: Clarkson College of Technology, School of Arts, Potsdam, New York
Supporting Agency: U. S. National Science Foundation, Division of Mathematics and Physical Sciences, GP-29612A#1
Period: 5/73 to 4/74 Funds: $20,500

The relationship between surface viscosity and the size, shape, and the conformation of molecules adsorbed at liquid/air and liquid/liquid interfaces will be investigated using an original design viscometer.

SSIE No.: GSP-8997

R-125-74
UTILIZATION OF A TECHNOLOGY ASSESSMENT OF OUTER CONTINENTAL SHELF OIL AND GAS OPERATIONS

Principal Investigator: Kash, D. E. and I. L. White
Specialty: Political Science
Performing Organization: University of Oklahoma, Graduate School, Norman, Oklahoma
Supporting Agency: U. S. National Science Foundation Research Applications Direct #GI-29942 A#3
Period: 12/73 to 9/74 Funds: $38,600

A utilization plan will be implemented for the work "A Technology Assessment of Outer Continental Shelf Oil and Gas Operations."

SSIE No.: GSQ-31-2

R-126-74
PHYSICAL ASPECTS OF CRUDE OIL SPILLS ON NORTHERN TERRAINS

Principal Investigator: MacKay, D., M. E. Charles, and C. R. Phillips
Specialty: Chemical Engineering
Performing Organization: University of Toronto, Toronto, Ontario Canada
Supporting Agency: Canadian Government, Department of Indian Affairs and Northern Development
Period: 7/73 to 6/74 Funds: $60,000

A study to predict the physical effects of crude oil spills on Mackenzie Valley terrain is being conducted.

SSIE No.: AR-826

R-127-74

A STUDY OF THE HYDROGRAPHY AND WIND-INDUCED CURRENTS IN EASTERN PRINCE WILLIAM SOUND

Principal Investigator: Muench, R.
Performing Organization: University of Alaska, Institute of Marine Sciences, College, Alaska
Supporting Agency: U. S. Department of Commerce
Period: 9/72 to 8/73 Funds: $51,600

The project includes the study of oceanographic processes, such as circulation and mixing of the water column, in order to provide information in predicting the effects of possible oil spillage in Prince William Sound. Maximum environmental protection measures are hoped to be provided from the information obtained.

SSIE No.: GBP-1019

R-128-74

ANALYTICAL PHYSICAL MODE

Principal Investigator: White, F. M.
Specialty: Ocean Engineering
Performing Organization: University of Rhode Island, School of Engineering, Kingston, Rhode Island
Supporting Agency: U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Sea Grant Office, #2-35190
Period: 7/72 to 6/73 Funds: $21,935

A mathematical computer model is being developed and verified for Narragansett Bay. Spatial and temporal variations of physical characteristics will be able to be predicted.

SSIE No.: GBP-49-2

3. CHEMICAL

R-129-74
ENZYMATIC REMOVAL OF OIL SLICKS

Principal Investigator: Gholson, R. K. and P. E. Guire
Specialty: Biochemistry
Performing Organization: Oklahoma State University, Agricultural Experiment Station, Stillwater, Oklahoma
Supporting Agency: Oklahoma State Government #0058543, OKL01483
Period: 7/72 to 6/73 Funds: Unknown

Controlled natural chemical processes are being developed to remove oil from the water's surface.

Cleanup

SSIE No.: GY-58543-1

4. ECONOMIC

R-130-74
SEA COAST PLANNING PROJECT

Principal Investigator: Hetrick, C., P. G. Mikolaj, W. D. Morgan, D. Gold, R. Deacon, and J. Sonquist
Performing Organization: University of California, School of Letters, Santa Barbara, California
Supporting Agency: U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Sea Grant Office #2-35208
Period: 9/72 to 8/73 Funds: $51,482

Basic data, plan formulation and decision procedures are being provided to assist Santa Barbara County in the development of the County's sea coast. The project includes evaluating the impact of beach pollution on coastline development, with particular reference to natural oil seeps and oil pollution.

Biological

SSIE No.: GBP-1135

R-131-74
OCEAN UTILIZATION AND COASTAL ZONE DEVELOPMENT

Principal Investigator: Keil, A.
Specialty: Ocean Engineering
Performing Organization: Massachusetts Institute of Technology, School of Engineering, Cambridge, Massachusetts
Supporting Agency: U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Sea Grant Office, #710157, 0241333000
Period: 7/72 to 6/73 Funds: $24,700

An analytical cost/benefit framework will be constructed in order to examine the policy options available to the New England states regarding offshore petroleum development.

SSIE No.: GBP-721

5. GENERAL

R-132-74
OIL SPILLS IN THE ARCTIC

Principal Investigator: Feingold, A.
Specialty: Mechanical Engineering
Performing Organization: University of Ottawa, Ottawa, Ontario, Canada
Supporting Agency: U. S. Department of Commerce, Maritime Administration, #025684
Period: 7/72 to 6/73 Funds: Unknown

The possible consequences of an oil spill in the Arctic due to structural failure of a pipeline is being studied. Study findings will provide input for formulation of regulation regarding pipeline construction and operation under Arctic conditions.

Design and Engineering

SSIE No.: GBM-89

R-133-74
NATURAL OIL SEEPAGE IN THE SANTA BARBARA CHANNEL - PHYSICOCHEMICAL ASPECTS

Principal Investigator: Mikolaj, P. G.
Performing Organization: University of California, School of Engineering, Santa Barbara, California
Supporting Agency: U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Sea Grant Office, #2-35208
Period: 9/72 to 8/73 Funds: $19,030

Physical, chemical and environmental factors which are related to shoreline contamination from natural oil seeps in the Santa Barbara Channel are being examined. The data are being used to evaluate potential control measures and to identify heavily affected coastal areas.

Physical, Chemical

SSIE No.: GBP-1136

D. OIL POLLUTION PREVENTION

1. DESIGN AND ENGINEERING

R-134-74
CONSTRUCTION SUPERVISION OF THE OIL AND HAZARDOUS MATERIALS SYSTEMS CONTROL TEST BASIN

Principal Investigator: Cipriano, P.
Performing Organization: Engineers Incorporated, Newark, New Jersey
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #68-01-0198, 72P21137
Period: 7/73 to 6/74 Funds: Unknown

The contract is for on-site construction supervision and inspection of the oil and hazardous materials systems control basin, Edison Water Quality Lab., New Jersey.

SSIE No.: AO-21137-1

R-135-74
OIL SPILL DETECTOR DEVELOPMENT

Principal Investigator: Unknown

Performing Organization: Northeast Utilities Service Co., Hartford, Connecticut
Period: 1/73 to 12/73 Funds: $27,200

A program is proposed to develop a dockside water monitoring system at electric generating stations. The system will automatically provide surveillance for fuel oil transfers and shut down the operation to minimize spillage in case of accident.

SSIE No.: AS-840

2. OIL RECOVERY AND HANDLING TECHNIQUES

R-136-74
BAY WATCH

Principal Investigator: Brown, G. and T. Kowalski
Performing Organization: University of Rhode Island, School of Engineering, Kingston, Rhode Island
Supporting Agency: U. S. Department of Commerce, National Oceanic & Atmospheric Administration, Sea Grant Office, #2-35190
Period: 7/72 to 6/73 Funds: Unknown

The project includes conducting experimental programs to obtain necessary data for the development of an oil spill contingency plan for Narragansett Bay.

SSIE No.: GBP-1048

R-137-74
MARAD OILY WASTE STUDY 2-36202

Principal Investigator: Fruh, S. M. and R. R. Bertrand
Performing Organization: Esso Research & Engineering Co., Linden, New Jersey
Supporting Agency: Frederic R. Harris, Inc.
Period: 7/73 to 6/74 Funds: Unknown

Different shoreside systems for receiving oily ship-wastewaters were designed based upon different discharge criteria. Several types of oil-water separators were studied and nine port complexes analyzed.

SSIE No.: AQ-880

R-138-74
DEVELOPMENT OF A CONTINUOUS REGENERATIVE MOVING BED TO REMOVE OIL FROM OIL-WATER SUSPENSIONS

Principal Investigator: Fruman, D. and A. Gollan
Performing Organization: Hydronautics Incorporated, Laurel, Maryland
Supporting Agency: U. S. Department of Commerce, Maritime Administration, #007607
Period: 7/72 to 6/73 Funds: $320,000

In an earlier phase of this study, polymethane foam was found to be an effective agent for separating oil from ship bilge and ballast waters. A prototype separator will be laboratory and field tested.

SSIE No.: GBM-83

R-139-74
REMOVAL OF OIL FROM AQUEOUS WASTES BY FLOTATION

Principal Investigator: Goren, S. L.
Specialty: Chemical Engineering
Performing Organization: University of California, School of Engineering, Berkeley, California
Supporting Agency: U. S. Department of the Interior, Office of Water Resources Research, #A-034-CAL
Period: 7/73 to 6/74 Funds: Unknown

The project's objective is to conduct experimental studies on air flotation as a means of removing emulsified oils from aqueous waste.

SSIE No.: GUW-1939-3

R-140-74
OIL WATER SEPARATION DEVICE

Principal Investigator: Graham, D. J.
Performing Organization: TRW Incorporated, Redondo Beach, California
Supporting Agency: U. S. Environmental Protection Agency, Office of Water Programs, #019694
Period: 7/72 to 6/73 Funds: Unknown

The research objective is to complete the development of a surface tension oil-water recovery device which separates oil from the surface of seawater. Further testing of possible oil collection rates and performance of the system under simulated conditions is to be conducted.

Cleanup

SSIE No.: GMA-844-1

R-141-74

OIL RECOVERY SYSTEM. HIGH SEAS SLICK RECOVERY SYSTEM PRELIMINARY DEVELOPMENT OF MARINE OIL SPILL SYSTEM

Principal Investigator: McGrew, J. L.
Performing Organization: Martin Marietta Corporation, Denver, Colorado
Supporting Agency: U. S. Department of Transportation, Coast Guard, #012117
Period: 7/72 to 6/73 Funds: $7,004

Research is being conducted to develop oil slick recovery equipment for use with oil slick containment devices.

Containment

SSIE No.: GZ 12117

R-142-74

OIL CONTAMINATED WATER RECYCLING SYSTEM

Principal Investigator: Overfield, J. L.
Performing Organization: Pollution Abatement Research, Dallas, Texas
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, 68-03-0214
Period: 7/72 to 6/73 Funds: $89,874

An oil-water-solids separator system that uses a chemically assisted backwashable coalescer and a chemically assisted backwash solids treater will be designed and fabricated. The system operation will be demonstrated on a pilot scale.

SSIE No.: GMA-1655

R-143-74

NAVAL VEHICLE DESIGN AND CONSTRUCTION: HYDRODYNAMICS OF SEPARATION PROCESSES IN FLEET WATER TREATMENT

Principal Investigator: Probstein, R. F.
Specialty: Mechanical Engineering
Performing Organization: Massachusetts Institute of Technology, Cambridge, Massachusetts
Supporting Agency: U. S. Department of Defense, Navy DN223056, N00014-67-A-0204-0057
Period: 7/73 to 6/74 Funds: $60,000

The interactions between liquid-liquid and liquid-solid in flowing systems will be examined as it applies to the separation of foreign substances (including oil) from waste water aboard Navy ships.

SSIE No.: GQN-223056-1

R-144-74
FLAME SPREAD OVER LIQUID FUEL

Principal Investigator: Torrance, K. E.
Specialty: Thermal Engineering
Performing Organization: Cornell University, School of Engineering, Ithaca, New York
Supporting Agency: U. S. National Science Foundation, Division of Advanced Technological Applications, #GI-31894X1
Period: 11/72 to 10/73 Funds: $31,700

A quantitative determination of the range of parameters which will allow a flame to spread over the surface of a liquid fuel is being made. Such studies will be useful in predicting the safe storage and handling ranges for liquid fuels.

SSIE No.: GSQ-116-1

R-145-74
OIL RECOVERY SYSTEMS. MARINE ENVIRONMENT OIL SPILL RECOVERY (PRELIMINARY DEVELOPMENT)

Principal Investigator: Trimble, L.
Performing Organization: Lockheed Missiles & Space Co., Sunnyvale, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $537

A design for a 2000 gallon per minute oil recovery system is being developed to be used under severe ocean conditions.

Cleanup

SSIE No.: GZ-24713

R-146-74

FEASIBILITY STUDY FOR OIL WATER SEPARATION (COALESCING PLATES AND PACKS CONCEPT)

Principal Investigator: Unknown
Performing Organization: General Electric Company, Philadelphia, Pennsylvania
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $46,147

The feasibility of using a unique concept oil-water separator is being evaluated.

SSIE No.: GZ-38159

R-147-74

FEASIBILITY STUDY FOR TURBINE DRIVEN CENTRIFUGE CONCEPTS FOR OIL WATER SEPARATION

Principal Investigator: Unknown
Performing Organization: Foster Miller Associates, Inc., Waltham, Massachusetts
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: $142,000

Feasibility tests are to be conducted on oil-water separators based on unique concepts.

SSIE No.: GZ-25443-1

R-148-74

FLOTATION SYSTEM USING ELECTROCHEMICALLY GENERATED GAS BUBBLES

Principal Investigator: Unknown
Performing Organization: Lockheed Aircraft Service Co., Ontario, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The flotation system concept for oil-water separation for use in shipboard applications will be evaluated.

SSIE No.: GZF-36

R-149-74
FREE VORTEX OIL RECOVERY SYSTEM

Principal Investigator: Unknown
Performing Organization: Scientific Associates, Inc., Santa Monica, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

A two-foot diameter free vortex oil recovery unit is being constructed and will be operated in order to define the physical performance characteristics necessary in a fullscale prototype.

Cleanup

SSIE No.: GZF-39

R-150-74
HYDROPHYLLIC MEMBRANE CONCEPT

Principal Investigator: Unknown
Performing Organization: Gulf General Atomic, Inc., San Diego, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The hydrophyllic membrane concept for oil-water separation for use in shipboard applications will be evaluated.

SSIE No.: GZF-35

R-151-74
OIL RECOVERY SYSTEMS-OIL RECOVERY AND STORAGE TANKSHIP

Principal Investigator: Unknown
Performing Organization: U. S. Department of Transportation, Coast Guard, Washington, D. C.
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The project objective is to determine the future advantages of a large capacity oil recovery ship to recover, separate, and store oil at sea.

Cleanup

SSIE No.: GZ-12126-1

R-152-74
OIL RECOVERY SYSTEM-OIL STORAGE UNITS FOR USE WITH HIGH SEAS OIL RECOVERY SYSTEM

Principal Investigator: Unknown
Performing Organization: U. S. Department of Transportation, Coast Guard, Washington, D. C.
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

Optimum methods for storage of recovered oil at sea are being determined.

Cleanup

SSIE No.: GZ-12125-1

R-153-74
PARTICLE VACUUM ACCELERATED GRAVITY CONCEPT

Principal Investigator: Unknown
Performing Organization: Mechanics Research, Inc., Los Angeles, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The concept of partial vacuum accelerated gravity for oil-water separation for use in shipboard applications will be evaluated.

SSIE No.: GZF-34

R-154-74
PROTOTYPE OIL RECOVERY SYSTEM FOR USE ON THE HIGH SEAS, PHASE II/ LOCKHEED

Principal Investigator: Unknown
Performing Organization: Lockheed Missile & Space Co., Sunnyvale, California
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: $20,286

In order to formulate structural criteria to be used in the design of pontoons in an oil recovery system, a loads analysis will be performed to determine the nature and magnitude of forces imposed.

Cleanup

SSIE No.: GZF-18-1

R-155-74
PROTOTYPE OIL RECOVERY SYSTEM FOR USE ON THE HIGH SEAS, PHASE II/
OCEAN SYSTEMS, INC.

Principal Investigator: Unknown
Performing Organization: Ocean Systems, Inc., Herndon, Virginia
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: $15,221

Experimental and calculated modifications are to be made on the weir of a prototype oil recovery system.

Cleanup

SSIE No.: GZ-25419-1

R-156-74
ULTRAFILTRATION CONCEPT

Principal Investigator: Unknown
Performing Organization: Abcor, Inc., Cambridge, Massachusetts
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The ultrafiltration concept for oil-water separation for use in shipboard applications will be evaluated.

SSIE No.: GZF-38

R-157-74
VORTEX CONCEPT

Principal Investigator: Unknown
Performing Organization: United Aircraft Corporation, Hartford, Connecticut
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $6,424

The feasibility of unique concepts for oil-water separation are to be evaluated.

SSIE No.: GZ-25445

3. RESEARCH

R-158-74
JOINT EPA-API COAST GUARD CONFERENCE OF PREVENTION AND CONTROL OF OIL SPILLS

Principal Investigator: Gould, J. R.
Performing Organization: American Petroleum Institute, Washington, D. C.
Supporting Agency: U. S. Environmental Protection Agency, Office of Research and Development, #800597, 72P15971
Period: 7/73 to 6/74 Funds: Unknown

At a three day conference in Washington, D. C., the current state of oil pollution research, including oil spill prevention, oil pickup disposal, and oil spill effects will be presented.

SSIE No.: GMA-1666-1

R-159-74
WATER QUALITY STUDY OF MONTAUK HARBOR, LONG ISLAND, NEW YORK, USING A HYDRAULIC MODEL

Principal Investigator: Hunt, J. P. and T. Omholt
Performing Organization: New York Ocean Science Laboratory, Montauk, New York
Supporting Agency: New York Ocean Science Laboratory
Period: 7/72 to 6/73 Funds: Unknown

Velocity patterns and dispersion and diffusion of foreign substances (including petroleum products) are being studied on a distorted model of Montauk Harbor in order to help predict the results of future harbor-related activities and developments.

SSIE No.: AL-984

R-160-74
FATE OF OIL IN A WATER ENVIRONMENT--A REVIEW, EVALUATION AND BIBLIOGRAPHY OF LITERATURE

Principal Investigator: Kolpack, R. L.
Performing Organization: University of Southern California Graduate School, Los Angeles, California
Supporting Agency: American Petroleum Institute
Period: 7/73 to 6/74 Funds: $100,000

A literature review was compiled concerning the area of oil transport in a water environment. The study was mainly concerned with aquatic parameters in reservoirs.

SSIE No.: PAP-61

R-161-74
POLLUTION CONTROL AND PREVENTION PROGRAM

Principal Investigator: Seelinger, J. N.
Performing Organization: Esso Research and Engineering Co.,
Linden, New Jersey
Supporting Agency: U. S. Department of Commerce, Maritime Administration, #007601
Period: 7/72 to 6/73 Funds: $245,000

A broad spectrum cooperative program, jointly funded, will study pollution control and prevention devices and systems.

Design and Engineering

SSIE No.: GBM-88

R-162-74
STATE-OF-THE-ART EVALUATION ON PETROLEUM AND COAL WASTES

Principal Investigator: Streebin, L.
Performing Organization: University of Oklahoma, Research Institute, Norman, Oklahoma
Supporting Agency: U. S. Environmental Protection Agency, Office of Research & Development, #12050 DKF
Period: 7/72 to 6/73 Funds: $14,297

Pollution problems, abatement procedures and control techniques of the petroleum and coal industries were studied. Results of field studies of three refineries were included.

SSIE No.: GMA-1584

R-163-74
SURFACE WATER MOVEMENTS IN NEW YORK HARBOR

Principal Investigator: Tyler, J.
Performing Organization: Long Island University, Graduate School, Greenvale, New York
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/73 to 6/74 Funds: Unknown

The multipurpose project engages in the review and compilation of information on water movements and geographical limits of the New York Harbor for purposes of oil pollution transport control.

SSIE No.: GZF-28

R-164-74

STUDY TO IDENTIFY SUPPORT SYSTEMS TO DELIVER AND MAINTAIN OIL RECOVERY SYSTEMS AND DISPOSAL OF RECOVERED OIL

Principal Investigator: Unknown
Performing Organization: Battelle Memorial Institute, Columbus, Ohio
Supporting Agency: U. S. Department of Transportation, Coast Guard
Period: 7/72 to 6/73 Funds: $253,107

The multipurpose project includes assistance in research and development in the areas of marine safety and pollution prevention and control.

SSIE No.: GZF-67

E. LEGAL ASPECTS OF OIL POLLUTION

R-165-74
FIELD DETECTION AND DAMAGE ASSESSMENT MANUAL

Principal Investigator: MacArthur, D. M.
Performing Organization: Enviro Control, Inc., Rockville, Maryland
Supporting Agency: U. S. Environmental Agency, Office of Research
& Development, #68-01-0113, 72P19533
Period: 7/73 to 6/74 Funds: Unknown

A handbook is to be produced which will include procedures and techniques legally and technically defensible for assessing damages to aquatic systems as a result of oil discharges and other dangerous materials.

SSIE No.: GMA-950-2

IV. PATENTS

A. UNITED STATES PATENTS

P-001-74

CONTAINING AND REMOVING OIL SPILLS ON WATER

Alquist, H. E. and R. T. Werkman

U. S. Patent No. 3,770,627. No illustration.

A coherent mass for containing spilled oil is made from a thermoplastic, organic polymer that floats on oil. The polymer is fused by igniting with an inflammable substance. The coherent mass is then skimmed from the surface of the water.

Citation Source: Water Resources Abstracts 7. 1974.
Entry # 15-022

P-002-74

SAFETY DEVICE AGAINST LEAKAGE FROM SHIPS, ESPECIALLY TANKERS

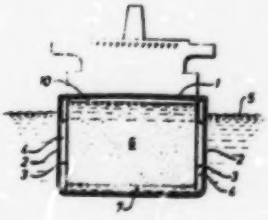
Backstrom, A. L.

U. S. Patent No. 3,785,321

This safety device consists of a flexible shield within the inner side of the hull. The narrow space is filled with water and in case of collision the shield water assumes the level of the surrounding sea. The shield space can also be filled with the liquid product and in case of collision the spillage will be minimal.

Citation Source: Selected Water Resources Abstracts 7(14). 1974.
Entry # 5G W74-07205

3,785,321
SAFETY DEVICE AGAINST LEAKAGE FROM SHIPS, ESPECIALLY TANKERS
Arne L. Backstrom, Stockholm, Sweden, assignor to Svenska Entreprenad AB Sentab, Stockholm, Sweden
Filed Nov. 18, 1971, Ser. No. 199,998
Claims priority, application Sweden, Nov. 23, 1970, 15866/70
Int. Cl. B63b 25/12
U.S. Cl. 114—74 R **6 Claims**



P-003-74

AN APPARATUS FOR SEPARATING OIL AND SOLIDS FROM WATER

Barra, F. J. and K. R. Murrell

U. S. Patent No. 3,784,010

Oil and water are separated in a closed vessel with several internal partitions and filler beds.

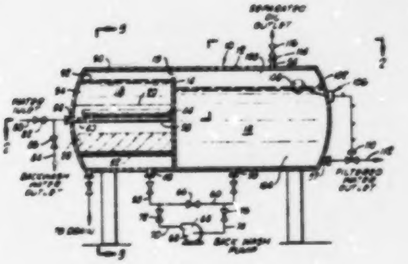
Citation Source: Selected Water Resources Abstracts 7(14). 1974.
Entry # 5D 7-W74-07202

3,784,010

APPARATUS FOR SEPARATING OIL AND SOLIDS FROM WATER

Frank J. Barra, Midwest City, Okla., and Kenneth R. Murrell, Odessa, Tex., assignors to Black, Sivalls & Bryson, Inc., Oklahoma City, Okla.

Filed Aug. 23, 1972 Ser. No. 283,180
Int. Cl. B01d *23/26*
U.S. Cl. 210—114 **5 Claims**


SEPARATED OIL OUTLET
WATER INLET
BACKWASH WATER OUTLET
FILTERED WATER OUTLET
TO DRAIN
BACK WASH PUMP

P-004-74

METHOD OF AND APPARATUS FOR THE RECOVERY OF OIL FROM WATER

Bunn, C. O.

U. S. Patent No. 3,783,129

A bed of finely divided coal and polyethylene matrix is carried by a conveyor through a recovery vessel sump. In the sump is spilled oil and water. Distillation equipment aboard the vessel separates the oil from the matrix.

Citation Source: Selected Water Resources Abstracts 7(14). 1974.
Entry # 5G W74-07201

3,783,129

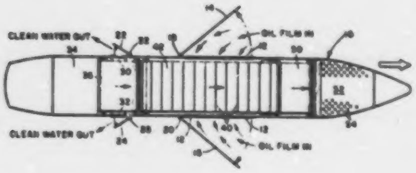
METHOD OF AND APPARATUS FOR THE RECOVERY OF OIL FROM WATER

Clinton O. Bunn, Denver, Colo., assignor to Col-Mont Corporation, Butte, Mont.

Filed Mar. 4, 1971, Ser. No. 121,000

Int. Cl. E02b *15/04*

U.S. Cl. 210—30 **17 Claims**



P-005-74

REMOVING OIL AND OTHER ORGANIC CONTAMINANTS FROM WATER

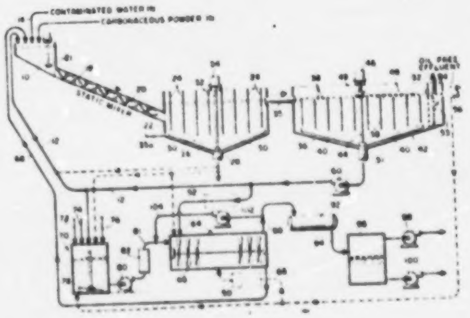
Bunn, C. O.

U. S. Patent No. 3,798,158

A reusable sorbent for oil and organic contaminants of water is made from -200 mesh or finer carbonaceous material and powdered plastic such as polyethylene.

Citation Source: Chemical Abstracts 81(2). 1974. Entry # 6130m

3,798,158
PROCESS FOR REMOVING OIL AND OTHER ORGANIC CONTAMINANTS FROM WATER
Clinton O. Bunn, Denver, Colo., assignor to Col-Mont Corporation, Butte, Mont.
Filed May 26, 1971, Ser. No. 146,985
Int. Cl. B01d *15/06*; C02b *1/14*
U.S. Cl. 210—33 **12 Claims**



P-006-74

OIL SLICK DISPERSANT

Canevari, G. P.

U. S. Patent No. 3,793,218. No illustration.

A nontoxic, biodegradable dispersant for oil slicks has been developed compounded with mixtures of C_{10-20} aliphatic carboxylic acids or their sorbitan monoesters, sorbitan monoacylates, polyoxyalkylene adducts of the sorbitan monoesters, and dialkyl sulfosuccinate salts.

Citation Source: Chemical Abstracts 81(4). 1974.
Entry # 16484u

P-007-74

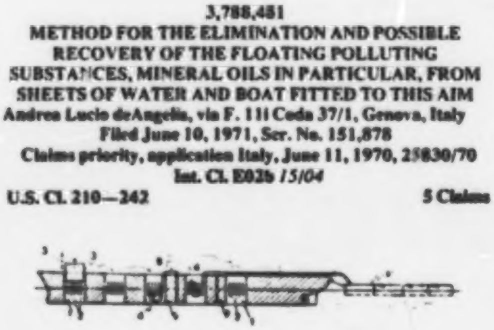
METHOD FOR THE ELIMINATION AND POSSIBLE RECOVERY OF THE FLOATING POLLUTING SUBSTANCES, MINERAL OILS IN PARTICULAR, FROM SHEETS OF WATER AND BOAT FITTED TO THIS AIM.

deAngelis, A. L.

U. S. Patent No. 3,788,481

A boat with wind or wave sheltered chambers that open to the sea has been designed for oil-water separation. The oil-water mixture is picked up in the chambers by submerged funnels and then pumped to tanks for separation by decanting.

Citation Source: Selected Water Resource Abstracts 7(14). 1974.
Entry #5G W74-07220



3,788,481
METHOD FOR THE ELIMINATION AND POSSIBLE
RECOVERY OF THE FLOATING POLLUTING
SUBSTANCES, MINERAL OILS IN PARTICULAR, FROM
SHEETS OF WATER AND BOAT FITTED TO THIS AIM
Andrea Lucio deAngelis, via F. lli Cuda 37/1, Genova, Italy
Filed June 10, 1971, Ser. No. 151,878
Claims priority, application Italy, June 11, 1970, 25830/70
Int. Cl. E02b *15/04*
U.S. Cl. 210—242 5 Claims

P-008-74

OIL-WATER SEPARATION

Hargis, R. E. and D. O. Bartley

U. S. Patent No. 3,799,872. No illustration.

Oil was separated from water by contact with a paraffinic solvent and a compounded surfactant.

Citation Source: Chemical Abstracts 81(4). 1974.
Entry # 16518h

P-009-74

METHOD AND APPARATUS FOR COLLECTING A FLOATING LIQUID

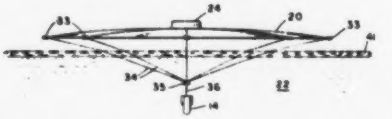
Kirk, W. P. and D. W. Reynolds

U. S. Patent No. 3,788,079

A membrane sheet with a weighted periphery is described that can be rapidly placed over spilled oil or unwanted liquid floating on water. Radial inward movement of the membrane and further sinking of the periphery concentrate the unwanted liquid where it may be pumped off.

Citation Source: Selected Water Resources Abstracts 7(14). 1974.
Entry # 5G W74-07215

3,788,079
METHOD AND APPARATUS FOR COLLECTING A FLOATING LIQUID
William P. Kirk, 22 Glenhaven Cir., Saco, and Dwight W. Reynolds, RFD 1, Box 49, Pownal, both of Maine
Filed May 26, 1972, Ser. No. 257,413
Int. Cl. E02b *15/04*
U.S. Cl. 61—1 F **13 Claims**



P-010-74

CONTAINING AND REMOVING OIL SPILLS ON WATER

Pitchford, A. C.

U. S. Patent No. 3,785,972. No illustration.

Oil is removed from the surface of the water by applying a mixture of wax and a volatile, inflammable substance. The mixture is ignited, the wax fuses, and the solidified mass is then picked up.

Citation Source: Selected Water Resources Abstracts 7(14). 1974.
Entry # 5G W74-07208

P-011-74

OIL RECLAIMING DEVICE FOR REMOVING OIL FROM THE SURFACE OF WATER

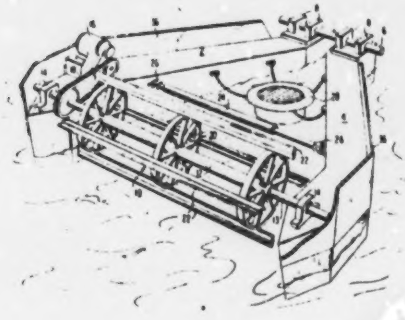
Smith, R. P., Jr.

U. S. Patent No. 3,785,496

Oil slicks are removed from the surface of the water with two booms which form a V with an oil receiving sump at the apex. A paddle wheel at the open end of the V concentrates the oil in the V.

Citation Source: Selected Water Resources Abstracts 7(14). 1974.
Entry # 5G W74-07206

3,785,496
OIL RECLAIMING DEVICE FOR REMOVING OIL FROM THE SURFACE OF WATER
Raymond Peter Smith, Jr., South Williamsport, Pa., assignor to Craftmaster, Inc., Williamsport, Pa.
Filed July 28, 1972, Ser. No. 276,000
Int. Cl. E02b *15/04*
U.S. Cl. 210—242 **5 Claims**



P-012-74

METHOD OF REMOVING OIL SPILLS

Teng, J., J. M. Lucas, and R. E. Pyler

U. S. Patent No. 3,788,984. No illustration.

A carbohydrate fatty acid ester (preferably cellulose acetate) in powder, fibrous, or granule form is applied to spilled oil on water. After picking the absorbent material back up, as much as 95% of the oil can be recovered.

Citation Source: Selected Water Resources Abstracts 7(14). 1974.
Entry # 5G W74-07222

P-013-74

APPARATUS FOR REMOVING SURFACE POLLUTANTS FROM WATER AND OTHER LIQUIDS

Valibouse, B. and J. Pichon

U. S. Patent No. 3,789,988

Oil is separated from water by pumping the mixture through a tangential inlet into a cyclone chamber. The oil is concentrated in the resulting whirlpool and drained.

Citation Source: Selected Water Resources Abstracts 7(14). 1974.
Entry # 5G W74-07223

3,789,988

APPARATUS FOR REMOVING SURFACE POLLUTANTS FROM WATER AND OTHER LIQUIDS

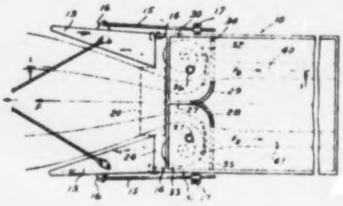
Bernard Valibouse, Grenoble, and Jacques Pichon, Saint Martin-d'Heres, both of France, assignors to Societe Grenobloise d'Etudes et d'Applications Hydrauliques (Sogreah), Grenoble (Isere), France

Continuation-in-part of Ser. No. 185,719, Oct. 1, 1971, abandoned. This application Mar. 14, 1973, Ser. No. 341,070

Claims priority, application France, Nov. 6, 1972, 7239209; Oct. 2, 1970, 7036478

Int. Cl. E02b ***15/04***

U.S. Cl. 210—242 **12 Claims**



B. FOREIGN PATENTS

P-014-74

OIL POLLUTANT CONFINING AND RECOVERY

Bennett, J. A. and H. Welsh

British Patent 1,344,564

A pair of booms which assume a V-shape when towed by two tugs is constructed of an oleophilic mesh. Water flows through the surface and subsurface portions of the mesh boom and the oil is entrained and funneled to the bottom of the V for recovery.

Citation Source: Chemical Abstracts 81(2). 1974.
Entry # 6144u

P-015-74

MINERAL OIL DISPOSAL

Fujii, C. and M. Fukuda

Japanese Kokai (unexamined patent application) 73 92,288

An organic filler containing granulated foamed polystyrene acts as an oil absorber, after which it conglomerates and sinks to the bottom.

Citation Source: Chemical Abstracts 81(4). 1974.
Entry # 16252h

P-016-74

REMOVAL OF OIL FROM WASTE WATER

Janusch, A., W. Joven, and R. Hanke

German Offenlegungsschriften (unexamined patent application) 2,345,353

An oil-water emulsion is separated by first adjusting the pH to 6.0 and then passing it through parallel electrolytic cells containing vertical electrodes and a pulsating current.

Citation Source: Chemical Abstracts 81(2). 1974.
Entry # 6111f

P-017-74

FILTER FOR OIL REMOVAL FOR WASTE WATER

Jerbo, T. N. A. and I. H. B. Larsson

German Offenlegungsschriften (unexamined patent application) 2,335,689

A filter device used for waste water containing small amounts (<10ppm) of oil is composed of a cylinder packed with bundles of oleophilic polymer coated glass fibers.

Citation Source: Chemical Abstracts 81(2). 1974. Entry # 6107j

P-018-74

ADSORBENT FOR REMOVING OIL SPILLS FROM WATER

Kunii, S. and T. Asahara

Japanese Kokai (unexamined patent applications) 74 05,894

An adsorbent for oil on water is made from a powdered or granular electronegative material that has been treated with a surfactant and then rendered hydrophobic and oleophilic.

Citation Source: Chemical Abstracts 81(2). 1974. Entry # 6128s

P-019-74

AUTOMATICALLY CONTROLLED OIL SEPARATOR

Loosli, F. and S. Schaller

Swiss Patent 542,154

As an oil-water mixture in a cylindrical tank separates, sensor probes at different levels cause the oil and water to be drawn off automatically through different valves.

Citation Source: Chemical Abstracts 80(26). 1974.
Entry # 148918c

P-020-74

TREATING AN OIL-POLLUTED WASTE WATER

Matsumoto, M. and K. Yoshioka

Japanese Patent 73 39,073

An aqueous solution of a polypeptide and an aqueous solution of a metal compound are added to oil-polluted waste-water. The resulting reaction causes the oil to float to the surface where it can be removed.

Citation Source: Chemical Abstracts 80(26). 1974.
Entry # 148933d

P-021-74

OIL-SPILL ADSORBENT CONTAINING ZEOLITE AND PEARLITE

Miki, K., R. Oyama, and H. Kitagawa

Japanese Kokai (unexamined patent application) 74 07,184

A floating, pelletized oil adsorbent is made from activated natural zeolite, floatable pearlite, and a weak acid or an organic foaming agent. After binding and pelletizing, it is treated to render it hydrophobic and oleophilic.

Citation Source: Chemical Abstracts 81(2). 1974.
Entry # 6126q

P-022-74

QUANTITATIVE DETERMINATION OF PETROLEUM AND ITS PRODUCTS IN WASTE WATERS

Molochnyi, V. B., R. M. Nigmatullin, R. S. Sagdeev, and A. A. Samsonov

U.S.S.R. Patent 390,424

Waste water is treated with a water miscible organic solvent and the amount of petroleum and its products are determined by photometric measurements.

Citation Source: Chemical Abstracts 81(2). 1974.
Entry # 6092a

P-023-74

PURIFICATION OF OIL-CONTAINING WASTE WATER

Murata, N. and T. Yagi

Japanese Kokai (unexamined patent application) 74 05,884

An emulsifier of oil and water is treated with a mixture of halides of alkaline earth metals, powdered hydrophobic inorganic materials, and optionally corrosion inhibitors. After agitation the mixture is filtered.

Citation Source: Chemical Abstracts 81(2). 1974. Entry # 6127r

P-024-74

HYDROPHOBIC, OLEOPHILIC CELLULOSIC FIBERS

Orth, G. O., Jr.

South African Patent 72 04,876

Sorbent fiberboards manufactured from cellulosic, oleophilic materials, e.g. waxes, can sorb motor oil from a water surface.

Citation Source: Chemical Abstracts 80(26). 1974.
Entry # 147137k

P-025-74

EMULSIFYING AND DISPERSING OIL SLICKS ON WATER

Parkinson, A. and R. W. Tomlinson

British Patent 1,342,591

A combination of solvents is compounded in such a way that when sprayed on Kuwait crude oil floating on water and then agitated, a fine emulsion is produced. The solvents are considered to be less toxic to marine life than synthetic detergents.

Citation Source: Chemical Abstracts 80(26). 1974.
Entry # 148935f

P-026-74

EMULSIFYING AND DISPERSING OIL SLICKS ON WATER

Parkinson, A. and R. W. Tomlinson

British Patent 1,343,401

Permanent oil-water emulsions can be formed with an oil soluble-water insoluble emulsifying compound. The compound is considered to be less toxic to marine life than other detergents.

Citation Source: Chemical Abstracts 80(26). 1974.
Entry # 148936g

P-027-74

OIL ADSORBING FILTER CONTAINING ATACTIC POLYPROPYLENE

Suzuki, K. and H. Kobayashi

Japanese Patent 73 36,839

Oil-adsorbing filter material is made by thermally decomposing four different portions of polypropylene at different temperatures and by adding bone meal or chips.

Citation Source: Chemical Abstracts 81(2). 1974.
Entry # 4598w

P-028-74

REMOVAL OF OILS FROM WASTE WATER BY AERATION IN THE PRESENCE OF CATALYST AND ABSORPTIVE FILTRATION

Takado, O.

Japanese Kokai (unexamined patent application) 73 95,370

In the presence of a catalyst, waste water containing lubricating or vegetable oil is aerated. The resulting suspended solids are then removed by adsorptive filtration. The process removes approximately 99% of the oil from the water.

Citation Source: Chemical Abstracts 80(26). 1974.
Entry # 148922z

P-029-74

OIL ABSORBER

Yoshida, K.

Japanese Kokai (unexamined patent application) 73 102,079

Short cellulose fibers are treated with an oleophilic substance and a cationic surfactant and then dried to make an oil absorbent material.

Citation Source: Chemical Abstracts 81(2). 1974. Entry # 6142s

TOPIC CROSS REFERENCE

Remote Sensing: C-114-74

Analysis: C-015-74, R-009-74, R-017-74, R-075-74, R-019-74, R-110-74, P-022-74

Containment: R-141-74, P-001-74

Cleanup: C-031-74, C-032-74, C-034-74, C-035-74, C-037-74, C-051-74, C-058-74, C-066-74, C-073-74, C-076-74, C-078-74, C-079-74, C-080-74, C-082-74, C-104-74, C-112-74, R-058,74, R-059-74, R-062-74, R-065-74, R-066-74, R-067-74, R-068-74, R-069-74, R-080-74, R-084-74, R-086-74, R-087-74, R-091-74, R-099-74, R-102-74, R-104-74, R-105-74, R-106-74, R-108-74, R-112-74, R-116-74, R-118-74, R-120-74, R-121-74, R-129-74, R-140-74, R-145-74, R-149-74, R-151-74, R-152-74, R-155-74, P-001-74, P-003-74, P-004-74, P-005-74, P-006-74, P-007-74, P-008-74, P-009-74, P-010-74, P-011-74, P-012-74, P-013-74, P-014-74, P-015-74, P-016-74, P-017-74, P-018-74, P-019-74, P-020-74, P-021-74, P-023-74, P-024-74, P-025-74, P-026-74, P-027-74, P-029-74

Biological: C-014-74, C-030-74, C-039-74, C-045-74, C-088-74, C-121-74, R-130-74

Physical: R-060-74, R-085-74, R-133-74

Chemical: R-060-74, R-077-74, R-085-74

Economic: R-122-74

Design and Engineering: C-051-74, C-100-74, C-101-74, C-113-74, R-132-74, P-002-74, P-028-74

Oil Recovery and Handling Techniques: R-031-74

General: R-098-74, R-123-74

U.S. Environmental Protection Agency
Industrial Waste Treatment Research Laboratory
Edison, New Jersey 08817

We are requesting your assistance upon receiving this report ("Oil Spill and Oil Pollution Reports, July 1974 - October 1974").

Is the information usable?
Is the format helpful?

We invite your comments and suggestions. Thank you.

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